DOCUMENT RESUME

ED 278 305 HE 019 974

TITLE Improving University Teaching. Volume I: Abstracts of Contributed Papers, Seminars, Workshops, Index of Presenters. International Conference (11th, Utrecht, The Netherlands, July 2-5, 1985).

INSTITUTION Maryland Univ., College Park. Univ. Coll.; Utrecht State Univ., The Netherlands.

PUB DATE Jul 85

NOTE 145p.; Document contains small print. For other volumes in this series, see HE 019 975-976.

AVAILABLE FROM University of Maryland, University College, University Boulevard at Adelphi Road, College Park, MD 20742 ($40.00 for four volumes).

PUB TYPE Collected Works - Conference Proceedings (021) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC06 Plus Postage.

DESCRIPTORS *College Faculty; *College Instruction; Computer Assisted Instruction; Educational Quality; *Educational Technology; Faculty Development; Feedback; Higher Education; *Instructional Improvement; Instructional Materials; *Teacher Effectiveness; Teaching Methods

ABSTRACT

Workshop and seminar summaries and abstracts of papers from the eleventh international conference on improving university teaching are presented. Topics addressed by theme and seminar presentations include: quality control in higher education, institutional approach to academic improvement, interactive video, international evaluation and an electronic document delivery system, new technology and student learning, and improving the teaching-learning process through multiple sources of feedback. A collaborative symposium on applications of cognitive models to college teaching is also covered, along with a case study on academic improvement. Workshop topics include: the use of boardgames in the classroom, using written and oral work in content courses, teaching and research collaboration with undergraduate students, evaluating faculty development programs, interdisciplinary studies, creating computer-based learning materials, tutorial teaching, and constructing and scoring essay questions. For each workshop, objectives, length, activities, previous experience expected, maximum number of participants, and an index of presenters are provided. (SW)

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Improving University Teaching

Eleventh International Conference

I Abstracts of Contributed Papers

Seminars

Workshops

Index of Presenters

July 2-5, 1985
Utrecht, The Netherlands

Under the auspices of
The University of Maryland
University College
and
The State University
of Utrecht

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C O N T E N T S

	pages
Table of Contents for Abstracts of Contributed Papers, by Session	I-ii., I-iii.
Abstracts	1 - 80
Table of Contents for Theme Sessions, Seminars, Symposium, Case Study	81
Theme Session, Seminar, Symposium, Case Study Summaries	82 - 107a
Table of Contents for Workshops	108
Workshops	109 - 127
Index of Presenters	128 - 133

Complete manuscripts of contributed papers are contained in volumes II and III. Papers appear in the same order as their abstracts in this volume. At the beginning of volumes II and III are listings of papers by session.

ABSTRACTS OF CONTRIBUTED PAPERS

Title of Session		Time	Abstracts on Page Shown Below
Personality Problems of Students	Wed.	1030 - 1200	1
Using Computers in Teaching	Wed.	1030 - 1200	4
Burnout, Stress and Renewal of Academic Staff	Wed.	1030 - 1200	9
Improving Teaching by Evaluating Teachers	Wed.	1030 - 1200	12
Teaching Writing	Wed.	1030 - 1200	16
Curriculum Development in Management and Applied Sociology	Wed.	1030 - 1200	21
Students' Conceptions of Learning and Thinking	Wed.	1330 - 1500	24
New Approaches to Curriculum Development	Wed.	1330 - 1500	27
Computer Training and Networking	Wed.	1330 - 1500	31
Increasing Students' Involvement in Learning	Wed.	1530 - 1700	35
Faculty Motivation and Personnel Policies	Wed.	1530 - 1700	41
Institutional Planning and Evaluation	Wed.	1530 - 1700	44
Individualized Paper Discussions	Thurs.	1100 - 1230	47
Problems of Individual Student Differences in Background	Fri.	0830 - 1000	57

Teaching Learning and Thinking	Fri.	0830 - 1000	52
Evaluations of Computer Assisted Learning	Fri.	0830 - 1000	65
Independent Study and Distance Learning	Fri.	1400 - 1530	69
Teaching Values and Attitudes	Fri.	1400 - 1530	71
Faculty Development: More Perspectives	Fri.	1400 - 1530	76

A PRELIMINARY PORTRAIT OF STUDENTS WHO ARE ADULT CHILDREN OF ALCOHOLICS

Donnah Canavan-Gumpert
Boston College

ABSTRACT

In my work as a teacher and as a clinical psychologist in my university, a previously unidentified subgroup of students, adult children of alcoholics, has come to my attention. This paper presents a report of a preliminary survey of some personality traits and affective states that characterize this group of students, and my observations of a therapy group of students who are adult children of alcoholics.

As compared to the general student population, those students who came from homes with one or more alcoholic parent(s) reported more negative and less positive affect states, had a higher fear of success and scored higher on a number of the characteristics outlined by Woititz (1983) in her book, Adult children of alcoholics. In addition, the data suggest that the sex of the alcoholic parent is likely to interact with the sex of the affected child in producing somewhat different patterns of results among the sub-groups of students.

DETERMINING REASONS FOR SUCCESS AND FAILURE AMONG A SAMPLE OF UNIVERSITY STUDENTS USING THE CRITICAL INCIDENT TECHNIQUE: AN EXPLORATORY STUDY

Ronald V. Schmelzer
Eastern Kentucky University

Claire D. Schmelzer
University of Kentucky

ABSTRACT

This study was undertaken to determine what factors affect the academic success and failure of college students. The subjects were 50 freshmen and 67 Juniors and seniors.

Results suggested that persistent and active study was the most common reason for academic success, followed by setting challenging goals. Reasons for failure were attributed to lack of study, followed by poor time management and lack of goal setting. Failing students indicated that the instructor was the fault; whereas, successful students indicated that they, their peers, and the instructor were factors in their success. Instructors who are enthusiastic and are well organized contribute to success. Instructors who do not care about teaching, create anxiety, and who are disorganized contribute to failure.

It was concluded that finding specific factors leading to success might be more easily determined if the research is focused on factors that lead to success in specific courses rather than factors that lead to overall college success.

LETTING GOLDEN CHANCES PASS THEM BY:
SHY STUDENTS IN THE COLLEGE CLASSROOM

Frank J. Spicuzza
Undergraduate Social Work Program
University of Tennessee, Knoxville

ABSTRACT

A student walks to the back of the classroom, slips into a desk, opens a notebook and waits in silence for the class to begin. He does not interact with other students nor does he voluntarily participate during the class period. When called upon by the instructor he offers a brief response in a quivering voice. A detailed version of this episode introduces the issue of shyness and its impact on college students.

Shyness is a widespread social problem that is not easily defined due to its individualistic traits, various manifestations, and its interrelationship with other feelings and actions. The basic purpose of this paper, however, is not to develop a more comprehensive definition of the problem, but rather to raise the consciousness of educators to the following issues: shy students are present in the classroom, shyness is a handicapping condition, and shyness is a problem that can be addressed within the academic environment.

Specifically, this paper identifies a research instrument, the Social Reticence Scale, that is utilized to determine the extent of shyness present in a particular class. With shy students in attendance the paper proceeds to indicate what might occur to impede academic growth. In conclusion, strategies which do not sacrifice course content and can be implemented in any classroom are suggested to educators. These strategies assist in building a trusting, tolerant climate that is condusive to the educational growth of all classroom participants, especially shy students.

THE DESIGN AND EVALUATION OF A COMPUTER-BASED INSTRUCTIONAL SYSTEM TO AID WRITING

Morton P. Friedman
University of California, Los Angeles

ABSTRACT

WANDAH (Writing-aid AND Author's Helper) is an instructional system designed to assist writers in all phases of writing--planning and organizing ideas, transcribing ideas into print, and editing and revising. The design of WANDAH draws on three areas of research: (1) the analysis of writing as a cognitive problem-solving activity; (2) modern composition theory and research; (3) research on the human-computer interface.

WANDAH has three major components:

1. A word processor designed expressly for on-line composing.
2. A set of prewriting aids incorporating principles on modern composition theory to help writers generate ideas and plan their work.
3. A set of aids helping writers review and revise their work grammatically, stylistically, and thematically.

WANDAH is written in UCSD Pascal and runs on the IBM-PC and similar machines.

WANDAH is currently being evaluated in composition classes at several universities and high schools. In an initial evaluation conducted with five composition classes at UCLA, students and faculty expressed very positive feelings about WANDAH. Students reported more efficient use of time, better writing, more revision, and a gain in computer competency.

The future of computer-based instructional systems to aid writing is considered. A final section discussed the question of whether the computer will bring fundamental changes in the way we write and do research. A "SUPER-WANDAH" program is outlined.

Abstract

VITAL: A VIDEOTEX INTEGRATED TEACHING AND LEARNING SYSTEM FOR EDUCATION AND TRAINING

George A. B. Moore
University of Guelph

In this paper, computer based instruction applications are differentiated from the general use of computers in education for administration and research purposes or for the preparation of computer scientists.

A pilot project at the University of Guelph using Telidon/NAPLPS as the computer based vehicle is described. Flowing from this project has been the creation of an integrated videotex authoring and course delivery/management system. The system, under the acronym VITAL, is described briefly.

TUTOR/COMPUTER MARKING OF A KELLER PLAN COURSE

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(Department of Physical Sciences)
and M. Machin (Computing Services)
Trent Polytechnic

ABSTRACT

A Keller Plan course which has been in operation for several years has been successfully modified in a novel way so that part of the marking of each unit is accomplished by computer.

Multiple choice questions are selected randomly from a bank, and successful students are then printed out a long answer question for tutor marking. This combination of computer and tutor marking retains some desirable features of the Keller system (frequent tests with immediate feedback of results) and avoids overburdening the tutor with consequent queuing by the students.

TEACHING AND LEARNING PROBLEM SOLVING IN SCIENCE WITH COMPUTER AIDED INSTRUCTION

A. Pilot, J. H. P. Van Weeren,
C. T. C. W. Mettes and R. H. A. Staal
Twente University of Technology

SUMMARY

Since we have TAIGA available on microcomputers in our university as the Authoring System for CAI (Laagland, 1984), we are able to make complex CAI in less time and with greater ease than before. This makes it possible to use CAI also for exercises and feedback in teaching problem solving in science.

Using a system of heuristics we can support the problem solving steps the students want to take and give adequately feedback to each step. The most important phases in the problem solving processes realize successive transformations of the science problems. These transformations are concentrated in the analysis of the problem (supported with special heuristics for this analysis) and in the use of Key Relations (by selecting transformations using the unknown as point of departure, by specifying and substituting).

Using the system of heuristics, the CAI program is able to supervise the way a student realizes these essential problem solving actions and give feedback when mistakes are made. Because of the problem solving character of these exercises it is also possible to support partially some dead-end routes until the student can see that he is working in the wrong direction. In addition the system of heuristics gives the coursemaker the rationale to select between all possible routes that the students otherwise should try and make the feedback very specific for each mistake they make.

A COMPUTER ASSISTED INSTRUCTION EXPERIMENT IN THE UNDERGRADUATE CHEMISTRY EDUCATION

L. Van Poucke, M. Thoelen

Limburgs Universitair Centrum, Belgium.

This article gives a description of an experiment in Computer Assisted Instruction (CAI), that has been carried out during the last 8 years.
The motivation and the hard- and software we used, are outlined.
The results of the experiment are measured via a comparison of exam scores before and after introduction of CAI.
By means of several enquêtes we tried to find out the students feelings towards the new medium.

LEADERSHIP FATIGUE: A CHALLENGE TO SOCIAL WORK DEANS AND DIRECTORS

Frank R. Baskind
Frank J. Spicuzza
Marianne Woodside
The University of Tennessee, Knoxville

The purpose of this paper is to present current research which explores the nature and extent of leadership fatigue, the emotional exhaustion and depersonalization associated with higher education administration among graduate deans and baccalaureate program directors. During an era of diminishing resources and declining enrollments, an investigation which focuses on leadership fatigue has implications for student learning, faculty motivation, and curriculum outcomes.

In this research, a random sample of deans and directors of accredited master and baccalaureate programs throughout the United States completed an instrument which measured their job related emotional exhaustion and sense of depersonalization. An analysis of the data indicated that in frequency and intensity, these traits of leadership fatigue did not exist. The findings suggest that leaders in social work education are addressing the issue of leadership fatigue and minimizing its impact on their performance through a variety of preventive measures.

ABSTRACT

STRESS AND THE FACULTY MEMBER:
THE GENDER DIFFERENCE

Cathleen J. Gleeson
Walter H. Gmelch
Washington State University

This paper reports the findings of the National Faculty Stress Research Project on the differences in perceptions of stress between male and female faculty members. From 184 doctoral-granting universities a sample of 80 institutions and 1,920 faculty members was randomly selected. The 45-item Faculty Stress Index was developed and used to investigate perceptions of faculty stress. Analysis of the data revealed that women faculty perceived significantly greater levels of stress from both their job and their daily life as well as from their research and service functions at the university. No significant differences were found in the area of teaching. From factor analysis of the data emerged five distinct areas of faculty stress: 1) reward and recognition; 2) time constraints; 3) departmental influence; 4) professional identity; and 5) student interaction. Women faculty members were found to experience significantly higher levels of stress in two factors: time constraints and professional identity. Possible reasons for the differences are discussed and suggested changes within academe are explored.

THE DEVELOPMENT OF AN INSTITUTIONAL MODEL FOR FACILITATING FACULTY RENEWAL

William K. Jackson and Ronald D. Simpson
The University of Georgia

Abstract

Faculty stress and burnout are major issues in high education. Morale is declining in almost all types of institutions and academic careers are becoming less attractive. Economic and demographic factors are combining to produce aging faculties in need of both personal and professional renewal.

The authors describe a unique approach to faculty renewal at The University of Georgia. A conference on personal and professional renewal has been held for the last two years prior to the opening of school. A broad range of personal and professional development topics have been addressed during these two day events which have drawn approximately 500 attendees from the University. Faculty volunteers have willingly staffed the conference sessions and have provided post conference follow-up activities for their colleagues. The renewal conference has now become an annual event at the University.

USING STUDENT EVALUATIONS OF FACULTY PERFORMANCE

Michael Lindsay

University of Wisconsin-Eau Claire

Among the many methods for evaluating faculty instructional performance, student ratings have become widespread in recent years. This paper presents a summary of research on various topics in the literature about student evaluation of faculty performance. The paper is intended both to provide guidance for the application of this practice and to stimulate further inquiry into faculty evaluation procedures. Four considerations are presented: 1) the teacher effectiveness literature as a basis for constructing student rating instruments, 2) reliability and validity of student ratings, 3) sources of influence on student ratings, and 4) recommendations regarding the use of the rating data.

Specific conclusions include: 1) the teacher effectiveness literature is generally limited to providing global constructs about which students can make ratings, with students being more qualified to make some kinds of ratings than to make others; 2) reliability is generally established, but more questions remain with regard to validity-- in spite of recent successes using factor analytic approaches to validate rating-scale constructs; 3) student ratings of faculty performance may be influenced by several factors other than just the instructional performance; and 4) limitations must be recognized which exist in the instrument construction and in the data collection, analysis, and utilization. The identification of effective teaching remains a challenge to researchers, so we cannot yet conclusively establish what constitutes effective teaching, nor can we claim to possess incontrovertible means of measuring effective teaching.

STUDENTS' EVALUATION AND INSTRUCTORS' SELF EVALUATION
OF UNIVERSITY INSTRUCTION

Mordechai Miron
Tel Aviv University

Abstract

The purpose of the study was to investigate the relationship between students' evaluations of university instruction and self-ratings of instructors. The sample consisted of 52 instructors, from the School of Education at the Tel Aviv University who taught 93 classes. The instructors, as well as their students, responded to a 20 item instructional-practices questionnaire. Instructor self-ratings had only a modest relationship with the ratings given by students (a median correlation of .28).

Discrepancies between instructor ratings and ratings given by the students were further analyzed for (1) varying training in teaching--no difference was found; and (2) number of years of teaching experience--differences were noted: the self-ratings of less experienced instructors were closer to student ratings.

THE CHALLENGES OF IMPROVING PART-TIME FACULTY IN THE NEW CURRICULA

Michael Eric Siegel
Sally M. Johnstone
The University of Maryland University College

ABSTRACT

As Colleges and universities seek to respond to the volume of student demands for courses in such fields as business and computer studies, they will continue to rely heavily on part-time faculty to teach these courses. The participation of part-time instructors in higher education is attractive, since these individuals frequently command the needed expertise, are willing to teach at night or on weekends, and earn less money for teaching than do their full-time counterparts. Yet in many cases, part-time instructors lack the skills, and perhaps the attitudes, that are associated with effective teaching.

In this paper, a case study is developed centering on computer studies faculty at The University of Maryland University College. The high proportion of new faculty in computer studies is documented. Also presented are comparisons of student evaluations among computer studies faculty, math faculty, and all other faculty teaching at University College. What emerges through these comparative figures is the fact that computer studies faculty receive lower student ratings than do all other faculty on variables associated with effective teaching.

Based on these data, the paper explores four specific areas of weakness in the teaching behaviors of computer studies faculty and proposes solutions.

MASTER TEACHING: CURRICULUM SUPERVISION, TEACHER TRAINING, AND FACULTY EVALUATION

John T. Trahey
Loyola University of Chicago

Abstract

The paper indicates the reasons which prompted the Theatre Department of Loyola to institute a Master Teaching Program in 1983. It then explains how this Program has been implemented, the method by which visitations to classes were arranged, and what was done during and after the visitations.

Many problems in departmental teaching emerged. Eight of these are briefly presented in a way which suggests the directions the department wishes to go in solving them. A few of the easy solutions, such as changes in class times and locations, are mentioned. Most of the obstacles to effective teaching, however, will require more complicated and long term attention. The paper details three major and two minor initiatives the department is taking to deal with these obstacles. The most significant of these initiatives is the revitalization of the departmental committee system. Through a structured process of discussion in small committee and full faculty meetings the department expects to supervise the curriculum, improve teaching, and develop a fairly tangible amount of evidence of good teaching for better faculty evaluation.

Two sample class descriptions by the visiting Master Teacher are appended (Appendix I). There is also an example of the Master Teacher's December 1984 confidential letter to the chairman (Appendix II). Teachers' names have been omitted in these examples to protect the reputations of the persons involved from any possible harm.

Abstract

TEACHING UNDERGRADUATES THE FINEPOINTS
OF WRITING FOR PUBLICATION

Claudia M. Caruana
Long Island University, Brooklyn, New York

Teaching undergraduates the basics of quality writing always has been challenging for the college instructor. When the course pivots on writing for publication, however, the quality of writing must meet the expectations of the instructor as well as the demands of the marketplace and the editors or others who control it.

Unlike many creative or expository writing classes where considerable emphasis is placed on the work of notable authors, assignments in writing for publication classes must expose students to the rigors as well as the responsibilities of professional writing--stringent deadlines; research; rewriting; marketing; contracts; copyright and libel law; in addition to the finepoints of quality writing.

Although writing for publication courses are usually part of the journalism or communications arts curriculum, available to majors in the field, and often labeled, "magazine article or feature writing," these titles frequently do not reflect adequately the scope of such classes. Because writing is a necessary skill--whatever one's occupation--more universities should encourage students in fields other than journalism or communications arts to consider writing for publication courses.

Discussed here are assignments typical of writing for publication courses and the reasons behind their use.

REMEDIAL COMMUNICATION INSTRUCTION: WHAT AND WHAT FOR?

Donald H. Ecroyd and Caroline Drummond
Temple University

Three research projects completed and one underway at Temple University suggest that faculty expectancies for students' communication competency can be defined, that student perception of such competencies needed for classroom success are not necessarily the same as faculty perceptions, and that any sensible pedagogical design for remediation must include the shaping of students' perspectives to meet faculty expectations. Further implications of the research indicate that expectancies of faculty for the communication competency of their students will not be met by remedial programs that focus on correctness and mechanics; that such instruction must be task oriented; and that the concept of appropriateness, a key criterion in the judgment of competency, must be a criterion in remedial instruction as well. Students in need of remediation must learn to meet the specific communication competencies expected in the classroom culture. Often they do not know what is expected, and even when the related skills are in place, such students must learn how to decontextualize or elaborate their communication behaviors to succeed with classroom tasks.

Faculty at Temple University are developing specialized remedial courses designed to test and apply these findings. All such instruction uses a mastery model, with a format based on the work of James Moffett, and includes as an essential feature the integration of the communication skills of listening, speaking, reading, and writing. Results of five terms of experience with the program have been positive. A final report is not yet in order, but we think we are on the right track.

A B S T R A C T

Teaching to Potential: Achieving Writing Competency among College Students

THOMAS L. MILLARD

This paper describes the author's efforts in motivating college students to maximize their writing potential. The purpose of this "project" was the following: to enable students to perceive a higher priority for writing skills by making writing of serious quality a singular learning product they could appreciate as a measure of genuine individual accomplishment. The effort involved writing papers for submission to juried journals.

The objective was to instill in students the notion that the development of thinking skills underlying written discourse is a critical ingredient of the professional person's training.

The rationale was the assumption that the writing potential of students could be developed if we linked such efforts to the notion that, 1) contributing to the extant literature from which one has received his/her early training is a professional obligation and responsibility and, 2) since every professional person should at some point in their career have something important to say about their professional experiences and practice, cultivation of this attitude, and the development of skills in effective writing, should be a teaching goal across-the-curriculum.

Our program was successful in part, because it was made clear to the students that writing for publication was an option in lieu of the traditional term paper.

Techniques used in developing writing skills included writing short pieces for the OP-page of one's local newspaper and self-examination of one's experiences, pet peeves and interest, irrespective of course relevancy.

The effort to raise graduate students' writing to the level of competency is seen in the number of papers accepted for publication in such diverse journals as Adult Leadership, Journal of International Association of Pupil Personnel Workers, Today's Education, The Clearing House, Counseling and Values, The Guidance Clinic, Cimmaron Review, The Independent School Bulletin, Adult Education, Teacher Paper, School Board Notes, and Journal of Business.

Not only have these students learned to write and in the process raised their self-confidence, they also learned that to write is to learn to think.

Perhaps, the most striking instance of success in this program was the affirmation of students to continue writing for publication in other classes, in lieu of term papers. And this was true even of those students whose papers were not accepted for publication.

A NEUROLOGICAL AND COGNITIVE BASIS FOR THE GREATER EFFECTIVENESS OF TECHNICAL WRITING IN FRESHMAN COMPOSITION CLASSES

Dr. Neal A. Raisman

Maine Maritime Academy

ABSTRACT

A two-year study of twelve sections of required freshman composition courses indicated that technical writing used as the instructional mode was over 200% more effective in reducing student resistance to learning to write than other instructional approaches. Technical writing-based style was found to reduce student writing anxiety and lead to greater receptivity to instruction in learning to write in psychological tests; composition tests in mechanics and grammar as well as in full essays than did instruction using literary-essay or rhetorical approaches to teaching.

The sources for the reduction is writing anxiety through technical writing may come from four areas: students' positive bias toward occupationally-oriented instruction as a result of their greater vocational awareness; a novelty factor; predisposition of the human neo-cortical structures leading to hemispheric dominance for technical style processing; and cognitive learning and memory strategies that cause for immediate acceptance and use of technical patterns of communication and structure.

ABSTRACT

AN INTERDISCIPLINARY APPROACH TO THE INTRODUCTORY WRITING EXPERIENCE FOR GIFTED STUDENTS

D. H. Brock, R. E. Martin, and R. Singleton, Jr.
University of Delaware

Students who enter college with high verbal skills often find the introductory writing experience to be boring and a waste of time. Yet these students need the discipline of writing in a controlled environment of criticism and feedback. While they frequently do not require attention to mechanical skills of writing, they often need to develop technical skills of rhetoric.

The University of Delaware has attempted to meet the needs of these students by developing a series of honors level introductory critical reading and writing courses. These courses vary in topical material, depending upon the interests of the individual instructor, but they are unified by the common objective of providing students with sufficient material, techniques, and criticism to develop their writing skills into effective and efficient form. Because there is no necessity to focus on mechanical skills, these courses generally have a high academic content, and frequently they involve an interdisciplinary approach to their subject content.

One of these courses is entitled "Biology and Literature: Views of Nature." It is team-taught by members of science and English departments. In addition to the general one stated above, this course has a number of subsidiary objectives. By using primary texts, such as Camus' The Plague, Darwin's Origin of Species, Emerson's Nature, Harvey's Anatomical Studies on the Motion of the Heart and Blood, and Marlowe's Dr. Faustus, we lead the student into a consideration of epistemology and the history of ideas. But, most importantly, we encourage the student to consider how the scientist and the writer have both shaped our views of the world around us.

This paper will address the development, implementation, and impact of this course at the University. The course will also be discussed in a companion workshop presented elsewhere in the program.

AACSB AND CURRICULUM FROM 1973 TO 1983: A DECADE OF CHANGE - A BIAS FOR ACTION?

Gene E. Burton
California State University, Fresno

Abstract

American management is facing its most crucial test since the Great Depression. The entire industrial and business arena is a myriad of economic woes, lagging productivity, worker unrest, managerial disaffection, and the sense that the nation is losing its confidence in itself and in its economic institutions. Everywhere one turns, the catch sayings are anti-business thoughts such as "TGIF" and "Take This Job And Shove It."

Not only is American business being criticized, but so is the American manager and the American Business Schools that are responsibility for the education and development of managerial talent. In the face of these challengesconfronting management education, The American Assembly of Collegiate Schools of Business (AACSB) has called for a number of curriculum changes over the past decade. Just recently, the AACSB and The European Foundation for Management Development (EFMD) issued a joint plea for specific curricular improvements. This is a report on the response to the AACSB/EFMD challenges on the part of Americ's business schools.

THE CRYSTAL CURRICULUM: AN INNOVATIVE APPROACH TO MANAGEMENT EDUCATION

Audrey C. Cohen
College for Human Services
James L. Freeley
Long Island University

ABSTRACT

The purpose of this paper is to present a unique approach toward management education. Labeled the "Crystal Curriculum" because of its multifaceted components which interlock into a coherent whole, it was designed and is currently being used by the College for Human Services.

Comprised of eight areas of performance or learning crystals, each is an integrated unit of study equivalent to one semester of traditional college work. Encompassing the AACSB common body of knowledge as well as the liberal arts, these eight components are identified as follows: 1) Self-Assessment and Planning for Professional Development; 2) Building Professional Relationships; 3) Working in Groups; 4) Research and Communication; 5) Optimizing Human Resources; 6) Creating a Marketing Strategy; 7) Managing Tasks and Projects; and 8) Managing Change: Development of a Business Plan.

To integrate theory and practice as well as demonstrate competence in each performance area, each student must develop and carry out a "Constructive Action." Under the direction of a faculty member and carried out at a cooperating firm, it provides students with a concrete way to relate the educational program to the actual problems that confront a business firm.

DEVISING AND IMPLEMENTING AN APPLIED SOCIOLOGY GRADUATE PROGRAM

Calvin J. Larson
Gerald R. Garrett
The University of Massachusetts at Boston

ABSTRACT

Sociologists have long debated the worth of applied sociology to the discipline, as well as questioned the viability of creating an occupational niche for applied sociologists in non-academic settings: Will the development of sociology's applied side impede theory-building and basic research? Does it ultimately threaten to weaken sociology's appreciation of value-neutrality? Can applied sociologists effectively serve the ends of social or public policy? Although answers to such questions have been explored, there remain wide variations across the discipline as to the place of applied sociology in university curricula and on the merits of its scholarship. Despite this unsettled debate, the fact is that applied sociology courses and programs at both undergraduate and graduate levels are undergoing rapid development in institutions across the United States.

This paper contributes to a rapidly expanding body of literature on program planning and curriculum development in applied sociology through a case study of the M.A. program at the University of Massachusetts, Boston. Although it bears similarities to other programs, it is probably unique in the type of political-economic constraints it confronted. The initial pages outline the problems entailed in devising and implementing the program. Succeeding sections detail the structure of the program. The concluding section examines some lessons learned after the program's first year-and-a-half of operation.

AN EXPERIMENT IN LEARNING STRATEGIES AND CYBERNETIC LEARNING

Peter Tlach
University of Berne, Switzerland

ABSTRACT

After a trial run, an experiment was conducted with the goal of raising the students' awareness of their own learning behavior. On the basis of student reports about the projected study plans, descriptions and evaluations of their actual learning behavior for a period of 15 sessions or three months, no essential change in the actual learning behavior could be determined. External factors like the pressure of exams seem to influence behavior more than insight into one's own behavior and that of colleagues. Since no essential change in behavior was reported it can be assumed that the actual goal of the experiment, development of students' awareness of their behavior, was not achieved to the extent hoped for.

LEARNING: QUALITATIVE DIFFERENCES BETWEEN NOVICES AND EXPERTS

Erik Jan van Rossum and [illegible]
Department of Educational Psychology, Tilburg University
the Netherlands

Abstract

In the study treated here we have tried to sketch an outline of the phenomenon learning, seen from the learner's perspective.
By means of a number of open questions - that were answered in writing - we collected the ideas of 42 university students with regard to learning, concepts related to learning and with regard to their study activities.
We found five qualitatively different 'learning conceptions' that could be associated with the interpretation of other concepts and with behavioural descriptions. In this study we have limited ourselves to describing the two extremes of these five conceptions, placing them against the background of the novice-expert research.

In our opinion the conclusion can be drawn that a number of qualitatively different thought patterns with regard to learning exist, that at the same time can be seen as stages in the development of student thinking within the university context. We feel that the purpose of education should be the stimulation of this development.

In this light this study can be seen as a means to clarify the discussion about individual differences between students and the difficulties arising from them in the transition from upper-secondary to tertiary education, thus maybe providing a tool for improving university teaching.

AN INQUIRY INTO THE CONCEPTION OF FIRST-YEAR UNIVERSITY STUDENTS OF SOME PSYCHOLOGICAL TOPICS

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ABSTRACT

In the introduction the importance of the assessment of the quality of learning (i.e. understanding) and the adoption of a learner perspective is indicated.

During two consecutive years the quality of the conception of first-year psychology students of three psychological topics has been studied. During the first year of the investigation data have been gathered at the start of their study and again after four months. In the second year of the investigation during an examination after two months.

Students of the first year show no understanding of the study material on the sense of the Biggs (1982) SOLO-taxonomy, not even after four months. The answers given during an examination the year after to a specific question about learned material are qualitatively better and the level of the answers shows some relation with the level of their learning conceptions, and also with teacher grades.

Three factors can be held responsible for the amelioration of the quality of answers; familiarity with the subject, motivation for responding and the structure of the question.

ABSTRACT

THE IMPACT OF DECENTRALIZED PLANNING
FOR CURRICULUM DEVELOPMENT AT TWO-YEAR COLLEGES

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Many two-year colleges are beginning to experience enrollment declines for the first time in their histories. An immediate reaction to the decreased resources associated with lowered enrollments has been a reduction of academic course offerings and the development of retrenchment strategies. In contrast to these reactions Dutchess Community College has developed and implemented a Consensus Planning process to facilitate the responsiveness of its academic curricula. This type of development was made possible because the new planning process is decentralized and faculty centered. This has led to stress on curriculum development through substitution and modification. Key elements of the planning structure and process are described.

During the first semester of operation under the Consensus Plan more curriculum proposals were submitted than in the combined total of the last four years. These proposals included the deletion of existing programs, development of new programs, and adjustments of current programs. Thus, a positive result of the Consensus Plan has been to encourage thought relative to the expansion and substitution of curriculum, while decreasing thought concerning retrenchment and program attrition.

ALTERNATIVE GENERAL EDUCATION EXPERIMENT: WEAVING A NEW CURRICULAR FABRIC OF "LITERACIES"

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Abstract

Higher education programs are experiencing major metamorphoses. With increasing expectations for performance of graduates of university programs, the academic community continues to seek ways to integrate expanding content with contemporary and liberal arts. Technological education has contributed to the proliferation of computer-related courses usually interspersed with courses in the humanities and social sciences.

This paper describes the designing and implementing, at a state university, of an experimental general education curriculum and the preliminary evaluation data and plan. This Plan for Alternative General Education, (PAGE), is currently in place at George Mason University in an attempt to integrate disciplinary content with computer literacy, writing and speaking, and analytical skills. Two cohorts of Freshman and Sophomore students (N=493) are currently enrolled in the program.

The first two years of education for these students is interdisciplinary, general, and links the sciences and technical fields with the social sciences and humanities. PAGE links to all majors in the undergraduate programs. The PAGE curriculum reflects a matrix structure of "strands" and "cross-threads". The basis of sequential course offerings include two central strands: (1) Strand A- Symbols, Codes and Information, and (2) Strand B- Values, Themes and Cultural Problems. The three literacy "cross-threads", or functional objectives, include: (1) writing and speaking, (2) computing, and (3) problem-solving. This matrix across the curriculum provides a blending of courses across conventional departmental lines, while integrating major ideas from those disciplines into a more comprehensive program.

Currently available are data on the attitudes and progress of PAGE students. The evaluation plan for the experiment includes comparing PAGE objectives, with the attitudes and performance of similar students in the traditional general education curriculum.

ORGANIZATIONAL CHANGE AS A STIMULUS TO INTERDISCIPLINARY COOPERATION: AN EXPERIMENTAL RETURN TO THE BAUHAUS

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In response to a changing environment, the School of Applied Sciences underwent an adaptive organizational restructuring with the primary goal of enhancing the quality of educational opportunities for students through cooperative experience in product development. The faculty of the former traditionally departmentalized School reviewed the literature regarding organizational structure as influenced by alterations in the environment, then formulated a stepwise method of change culminating in a non-departmentalized College of Design and Technology that incorporated an optional Bauhaus Experience.

Using an interpretive and adaptive strategic model, the faculty studied both internal and external environments, established goals and timetables, completed an egalitarian proposal development process, built consensus through the approval procedure and initiated implementation. The resulting enhanced cooperation among the faculty is attributed both to the process itself and to the new opportunities for teamwork.

As a present day initiative, the historically based Bauhaus Experience is modeled after the pre-World War II movement in Germany that opened lines of communication between artists and craftsmen who were then able to create everyday items that were aesthetically pleasing as well as functional. In the new College, the Bauhaus Experience involved faculty in the fields of interior design, manufacturing, merchandising, and graphic arts and students from these and other majors. A Bauhaus team researches a proposed product, conceptualizes it, develops a workable design, manufactures a prototype, markets it to industry and conducts follow-up studies on consumer acceptance.

Projected outcomes include heightened faculty communication, increased interaction between faculty and students and enhanced cooperation with industry.

EXPERIMENTAL COLLEGIATE EDUCATION IN THE UNITED STATES

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Education is by nature experimental. As society changes, educational institutions adjust to accommodate the change or new institutions and agencies develop to meet the needs occasioned by it.

Early higher institutions in the United States were designed essentially to train clergymen, and their classically oriented curricula were vocationally designed to meet the needs of this special group. When the educational base broadened, many institutions clung to their classical curricula in the name of preserving standards, but other schools grew up to provide a changing society with the sorts of higher education it demanded.

Experimental education in the present century has taken many forms, ranging from the Neo-Scholastic approach that resulted in the Great Books Program at the University of Chicago to Bennington College's living-learning college to California's tiered system of higher education to the University of South Florida's work-study curriculum, which is practiced at a number of other schools as well.

Continuing education and external degree programs will necessarily proliferate to meet the needs of a society that is advancing technologically at such a rate that half the jobs that presently exist probably will not exist by the year 2000. Schools of the future will likely succeed only if they are flexible enough to meet the needs of a society caught up in cataclysmic change. Education will inevitably be redefined in terms of how it meets the dislocating changes that face modern societies.

A FACULTY MICROCOMPUTER TRAINING PROGRAM

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Increasingly more and more faculty at the University of California in Davis are acquiring microcomputers. This proliferation of micros has raised a number of concerns: (1) a high proportion of faculty are unfamiliar with micros and require training, (2) faculty expecting to purchase a micro are uncertain about the kind of hardware and software to obtain, and (3) once faculty obtain micros will they be used? As a response to these concerns, U. C. Davis developed a microcomputer training program composed of two components: a Self-Help Lab and a five week series of workshops. In the Self-Help Lab faculty explore different types of micros and software before purchasing their own equipment. In the workshops faculty receive instruction on computer skills useful to every academician: wordprocessing, database management, interfacing, spreadsheets, graphics, and library search. An important part of the workshop program is that every faculty member receives a micro on loan for the five week duration of the workshop series. Thus participants have ample opportunity to practice computer skills at their leisure. There is considerable demand for the workshops. At the end of this year we will have graduated 100+ faculty members, and we have over 200 faculty on the waiting list for next year's training sessions.

UNDER PRESSURE
ACADEMIC LIBRARIES AND THE ELECTRONIC INFORMATION AGE

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ABSTRACT

As the contours of the Electronic Information Age become more defined, it is becoming apparent that academic libraries in the United States, and research libraries in particular, are facing a challenge to their traditional mission of serving as the information repository for the institutions that support them. Numerous projections of the Information Society have been offered, from popularizing futurists such as Alvin Toffler and John Naisbett, to more scholarly speculators such as Frederick Wilfred Lancaster, Yoneji Masuda and Marc Porat. From all speculation there is little encouragement that academic libraries in the U. S. will be able to either participate fully in decisions affecting the course of the Information Age, or avoid the consequences of decisions being made by others. The study which follows sketches the nature and dimensions of the issues relating to this challenge.

ELECTRONIC NETWORKING
AS AN AVENUE OF ENHANCED PROFESSIONAL INTERCHANGE

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This paper describes what an electronic network is and how can it be applied most effectively to the instructional, research and service functions of higher education. Examples of the use of electronic networking are reported from the findings of the Electronic Networking Committee of the American Educational Research Association, Postsecondary Division (Division J). How the use of electronic networking may change and grow as faculty members become more familiar with its operation is discussed. Differences in communication between print and electronic media breeds different forms of interchange, thereby creating different communication cultures. These differences and the advantages and limitations of electronic and print cultures are contrasted. These differences are then applied to the future growth in utilization of electronic networking and its consequences for the future higher education and the professoriate.

COMPUTER TRAINING FOR FACULTY

William E. Russell
Merrimack College

Accessability to computers is no longer an obstacle to integrating their use in higher education. As more computers become available at all educational levels, lack of faculty training stands out as a major barrier to extensive and productive usage. This research was undertaken with the purpose in mind to conceive and to design a training program for the faculty of a small liberal arts oriented comprehensive college. Surprisingly, there is relatively little written about training faculty at the post-secondary level. In contrast, a large body of literature exists concerning computer training in corporate environments. In these settings training has been a concern for some time with the result that through experience and "trial and error" there has been a refinement of ideas and practices. This presentation, through a selected review of literature particularly more recent articles concerning training in business organizations, tries to point a direction in which the training effort of faculty might proceed. The paper discusses the training endeavor under the headings of content, methods, sources, and the environment for training college faculty.

A CONCEPTUAL FRAMEWORK FOR ENHANCING THE QUALITY OF THE TEACHING/LEARNING PROCESS

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ABSTRACT

Education and social work share the common outcome goals of learning and growth for the purpose of enriching the quality of life for individuals and society. Both professions are healing arts interwined with science. The thrust of this paper is the relevance of the social work concept of parallel process as a fruitful conceptual framework for enhancing the quality of the teaching/learning process in higher education. Attention is given to ways the concept was operationalized in the classroom.

The author has utilized parallel process in her classes over a period of years. Program evaluation methodology was employed to gain more precise evaluation of the outcomes for students. Thirty (80% rate of return) graduate and undergraduate social work students completed 46 items on a structured questionnaire that had three outcome objectives.

Students revealed explicit ways a parallel teaching/learning process enhanced their learning and growth. They confirmed they had a high level of retention; felt affirmed and respected as responsible adult learners; had increased self-esteem; were challenged to think, risk, and share; felt they gave to and received from others; and they understood the parallel yet different tasks of student and instructor. All but one student unequivocally affirmed that they felt the quality of the teaching/learning process in higher education would be improved by use of parallel process in all courses.

The parallel teaching learning process is rewarding for both students and the instructor. This suggests the concept may reduce or prevent burn-out.

CLASS PRODUCTIVITY, EFFICIENCY AND EFFECTIVENESS THROUGH SYSTEMATIC INSTRUCTIONAL DEVELOPMENT

P. Dale Brown

and

David N. Bateman

Southern Illinois University at Carbondale

University faculty face a variety of challenges in teaching — developing new courses, modifying existing ones, more students in larger sections — all with a need for improved productivity.

This paper shares some of the elements and results of the combined efforts of an instructional developer and a professor of management who have systematically developed a course in business communications. This course has received through a national competition the Southern Business Administration Association's 1984 award as the innovative program in the teaching of business.

Large numbers (288) of students in the program are expected to complete approximately ten times the number of written assignments (60+) as are typically found in the teaching of business communications, while using only 1.5 FTE professional faculty.

Basic elements of this innovative program designed for increased productivity include increasing student responsibility, expecting high student performance, overcoming entry level student deficiencies, critiquing student performance, and motivating students. In addition, an overview is presented of some of the instructional materials utilized and staff coordination efforts employed.

EXPERIMENTAL TEACHER/LEARNER INTERFACE MODEL FOR HIGHER EDUCATION: THE T DESIGN

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OBJECTIVE: The thrust of this paper is the improvement of university teaching through the implementation of a metamodel that focuses upon the teacher/learner interface. Examination of journal indices in education reveals a dearth of attention in this area.

THE APPROACH: The teacher/learner heuristics utilized in this research were developed by the author and are the product of an ongoing research program in education. The specific designs consists of the T design and three auxiliary models labeled FRiLs, R.Q.T.S.S., and X.E.E.F.

HYPOTHESIS: We hypothesized that application of these designs at the teacher/learner interface would result in significant gains in learning as reflected by test scores in content courses.

SUBJECTS: The test was carried out in a college classroom with thirty freshmen over the period of one quarter.

RESULTS: Statistical analysis revealed learning gains at acceptable levels of significance, $p. < .05$ to $p < .005$.

CONCLUSION: We conclude, thus, that the models are effective. The concept of teacher/learner interface can provide a fruitful focus for research and both teacher and students will derive a greater sense of satisfaction and achievement from the educational process.

CULTURE AND PEER-GROUP LEARNING: AN ACTION RESEARCH PROJECT WITH CHINESE SOCIAL WORK STUDENTS

John F. Jones

The Chinese University of Hong Kong

ABSTRACT

The problems involved in the transfer of technology are no less in the social sciences than in agronomy or medicine. Most conceptual models of social change come from America or Europe. It is frequently assumed by teachers and textbook writers that such models can be easily understood and applied in different cultures and circumstances.

The paper describes an action research project among social work students at The Chinese University of Hong Kong to explore (1) if students can utilize western social science theories in their own fashion to bring about change, and (2) how far these theories are altered and for what purpose during the exercise.

The teaching method used to test these ideas was peer-group non-directive teaching. The method itself comes under examination, since students expressed some resentment towards non-directive teaching, at least in the way it was conducted in this research.

USE OF TRAINING METHODS IN UNDERGRADUATE TEACHING

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ABSTRACT

In a culture where relationship between teachers and students rests on authority and reverence, freshmen start their undergraduate studies with a relatively passive mentality, expecting to be spoon-fed by their tutors in the way which prepared them for various forms of tests, examinations as well as assessments at the secondary school level and down. When they attend lectures in the classroom, they play the role of the receiver, accepting everything the tutors say and are prepared to parrot such information in the final examinations.

In order to change their learning habit, the author attempted to treat his students as adult learners and conducted his classes in principles of management like training sessions. In essence, he believed that adult learners should be responsible for their own learning and the job of the tutor was to actively involve them in the learning process. By explicitly exposing the students to their own thinking and pointing to the areas which they ignored, either by commission or omission, the author was happy to see that the students eventually developed insight into the problems which they had to solve. Instead of focusing on the explicit elements, they now began to examine the underlying factors as well as assumptions.

The use of training methods may not only enhance students' interest but also improve their conceptual abilities.

INTEGRATING COMMUNITY AGENCIES INTO UNDERGRADUATE EDUCATION: A COMPARISON OF TWO APPROACHES

Joan Retsinas
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The Department of Family Medicine at Brown University developed two formats to integrate experience with community agencies into academic training: a formal course and independent internships. In the course all students pursued the same academic component, yet spent "field" time in diverse community agencies. In an internship a student worked directly on one agency task, meeting only periodically with a Department sociologist. In the course, students gained a broad exposure to the field of social service agencies, support from peers, and an integral academic experience, but did not gain indepth knowledge of the agency. Internships, on the other hand, offered students a stronger experience with the agency, while forfeiting advantages of the course.

"MOTIVATING FACULTY THROUGH EVALUATION: IS IT POSSIBLE?"

Larry A. Braskamp
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This paper focuses on the role of evaluation for promoting faculty productivity. Personal incentives of faculty are presented, followed by a review of faculty use of evaluation. Finally conclusions about how evaluation can assist both faculty and institutions are drawn.

Based on the research conducted at five colleges and a research university, faculty place high importance on interesting and challenging work although university faculty place more importance on gaining influence than do college faculty but value less highly helping others.

The review of research on use of evaluation is classified into four conditions that need to be considered for optimal influence: (a) extent to which feedback is perceived as internal to the work itself and (b) perceived as informative rather than controlling, (c) career stages and (d) mode of communication of feedback.

Since faculty have different personal incentives and the influence of evaluation on performance is contingent on a number of conditions, evaluations should not be designed primarily to strengthen control over faculty by external means such as salary. Instead they should take advantage of the personal incentives of faculty including acccomplishment itself and altruism.

THE DILEMMA COLLEGES FACE ON PAY SCALES
A FREE MARKET SOLUTION

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ABSTRACT

As a result of shifting enrollment patterns, there is a shortage of classroom instructors in the Business and Engineering disciplines, and an oversupply of teachers in education, liberal arts, and the sciences. Shifts in student demand for courses has arisen, in part, because of changes in the types of skills demanded in the marketplace. Attempts to force salary equality across disciplines will have the effect of exacerbating the supply situation. Economic theory, even at the most basic level, describes the relationship between supply and demand. Equal salaries will cause more faculty to enter the oversupplied disciplines and fewer faculty to enter the undersupplied disciplines.

If the university is to fulfill a role in society of transmitting the culture and knowledge of a society to the next generation of students, it must be able to respond to the needs of society. Schools that inhibit the course choices of students will drive those students to other schools. In addition to losses in enrollments, schools will lose the surpluses currently generated by high demand programs. Over the long-term, administrations that do not respond to the demands of their constituents, will suffer declining enrollments and revenues. Then, rather than having too little demand for education and arts faculty and too much demand for business and engineering faculty, they will have no demand.

THE AGING OF COLLEGE FACULTY: INSTITUTIONAL CONCERNS AND FACULTY NEEDS

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Abstract

This paper examines the problems associated with the aging of college faculty and explores some possible solutions. The negative effects associated with aging faculty include the increased costs of higher education, reduction in administrative flexibility, limited inflow of new ideas and skills, and restricted employment opportunities for new Ph.D.'s. On the other hand, mid-career and seasoned professors have important needs such as the need for self actualization, and the quest for a sense of generativity. Research on faculty characteristics indicates that this group is a longer-lived and healthier one, and it maintains the relevant abilities and teaching effectiveness beyond the age of seventy. Therefore, the challenge for colleges is how to balance the interests of higher education while meeting the needs of and utilizing the talents of senior faculty. It is suggested that faculty development programs should take into consideration the special needs of senior faculty and innovative work options should be explored. Examples of such work options include phased retirement, part time employment and contract work. A brief description of these options is provided in the paper. However, in view of the large range of individual differences, decisions regarding work and retirement should be based on findings of systematic performance appraisal that provide objective evidence on their teaching effectiveness and ability to contribute in other ways. What we have proposed in this paper may seem idealistic, but we feel that the ideal of conserving valuable human resources and honoring people's right to work is worth striving for.

INSTITUTIONAL EVALUATION IN HIGHER EDUCATION IN QUEBEC

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ABSTRACT

It appears that no Quebec university has an official and systematic institutional evaluation policy, at least as far as this concept is usually understood.

If, strictly speaking, there is not any systematic undertaking of institutional evaluation, evaluation nonetheless exists in various forms and continues to be developed in universities, be it the evaluation of planning, programs, personnel or services.

Most universities have institutionalized their program evaluation system (or are in the process of doing so); an examination of these different systems reveals considerable differences in the approaches used.

An examination of Quebec experiences in relation to the environment in which they are situated allowed me to propose a hypothetical grid that would distinguish four evaluation strategies although they can be differenciated in these circumstances only in a way that must inevitably be arbitrary and over-simplified.

I shall recall the theories dealing with the university as an organization before taking up the four strategies we are proposing as hypotheses and that we shall, finally, relate to the Quebec experience of evaluating programs.

The university is, according to some authors, an organized anarchy, but which constitutes a peculiar saga. The strategies (control strategy, technocratic strategy, developmental strategy, consensual strategy) depend on whether the accent is put on the affective or cognitive stage, which varies according to the university's culture, and on whether the place where the decision to evaluate is taken is the hierarchy or the base, which varies according to the administrators' management style.

ASSESSING INSTITUTIONAL EFFECTIVENESS: THE MARKETING AUDIT
(Abstract)

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A university operates within a highly dynamic marketing environment of continually-changing forces over which the institution has little or no direct influence. It is critical to monitor such changes and to assess the university's ability to respond to shifting conditions.

The successful achievement of objectives in student recruitment, fund development, and public relations depends to a large extent upon an understanding of the importance of an external marketing-oriented focus. To help measure the effectiveness of university outreach programming, this paper shows how planners can apply the tool of the marketing audit.

The marketing audit is a systematic, broadly conceived, impartial evaluation of the university's marketing program. Its goals include both an assessment of current performance and the identification of problems and opportunities for future action. As an assessment tool, the marketing audit examines the university's external marketing environment, its resources and capabilities, and its strategic marketing activities in order to yield an objective and comprehensive overview of institutional effectiveness in the marketing area.

STRATEGIC MANAGEMENT IN ACADEME: A COMPARISON OF THE INTERNAL AND EXTERNAL EVALUATION OF INSTITUTIONAL EFFECTIVENESS AND ITS RELATIONSHIP TO SETTING STRATEGIES FOR LONG-RANGE SURVIVAL

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Strategic planning processes within universities can no longer be the product of simple intuition, faculty wish lists, campus gossip and administration preferences. Recent developments in corporate long-range planning have given rise to planning models and approaches for academic strategy making which seek to respond to universities' turbulent environments. Yet tentative first steps in this direction by universities can falter, often because it is easier to define the broad strategic plans of a not-for-profit institution then to undertake the difficult and anxious tasks of careful decision processes to reach consensus on such ultimate plans - - calling into question the efficacy of the goals themselves. This study examines the response of five leading universities in the province of Nova Scotia, Canada, to that province's Royal Commission on Post-Secondary Education, and explores their failure to match strategic planning processes with chosen grand strategies.

TEACHING RESEARCH TO TALENTED UNDERGRADUATES: AN EVALUATION OF A NEW MODEL

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Purdue University at Indianapolis

This paper evaluates the consequences of providing an intensive research experience to highly talented undergraduates between their junior and senior year. The students in the program worked full-time and one-on-one with an expert for 10 weeks developing a research study, executing it, analyzing the data, and preparing a report. Students in the research program were contrasted with a comparison group of talented undergraduates. The results of the evaluation found that the talented undergraduates who had participated in the intensive research experience showed a greater change in their perceived research skills, reported greater research productivity, indicated a stronger interest in research as a career choice (in contrast to practitioner/clinician), and were accepted at and attended graduate programs that are rated higher in research productivity than talented undergraduates who did not participate. Because these research skills would be learned in graduate school and because this type of program is expensive, its value does not appear to be based on the need to accelerate science education at the undergraduate level. However, the finding that career choices were influenced by participation in the research program is important. Because typical undergraduates are exposed to less advanced research experiences, these findings demonstrate that many talented students decide to pursue practitioner/clinician careers rather than research careers.

GRADUATE STUDENT ATTITUDES TOWARD FINANCE AS A FUNCTION OF CLASS SIZE

Alan E. Grimshaw
George Mason University

Enrollment in School of Business Administration courses has increased dramatically in the last decade. However, the increases in resources has not always kept pace. In an effort to deal with this problem many Schools of Business Administration have increased class size.

This paper presents the results of a study of students' attitudes toward finance as a subject, finance as a career, and toward the finance course in which they were enrolled as a function of class size. Two classes of Master of Business Administration (M.B.A.) students, identical in every respect, provided the data for the study. One class had twenty-five students, "normal" size at George Mason while the other had fifty students. The differences between the two classes in the mean attitude scores provide reasonable evidence that increasing class size results in a less positive attitude toward the subject being taught, the choice of the subject field as a career, and toward the class itself. The correlation analysis indicated that finance majors wanted a career in finance while not having a positive attitude toward the subject. This has nothing to do with class size but is an interesting contradiction. The regression analysis was statistically satisfying but extremely difficult to interpret. A decline in attitude scores toward a particular subject, career, or class is an opportunity cost that is difficult to quantify, but a cost nonetheless.

MEASUREMENT OF STUDY INVOLVEMENT

[illegible]
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ABSTRACT

This paper is a preliminary report on the development of an inventory for measuring the study involvement of the students. Study involvement is considered as a function of aroused motivation and organizational identification. Based on the instruments developed for measuring job involvement and organizational identification of workers in industrial settings, a 75 item questionnaire was developed to get an index of study involvement of students. Data were obtained from 172 freshman students in various Arts and Science courses in Delhi University. A factor analysis of the data yielded five psychologically meaningful factors which were identified and labelled as: organizational identification, self-confidence, involvement, feedback and peer-relations. It is hoped that with further refinement, the instrument will prove to be a useful tool in the processes of selection and admission and in identifying and counselling the under-achievers.

THE PRELAW MAJOR: ADVISEMENT OR EDUCATION?

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University of New Hampshire

As a consequence of the opposition of American law schools to the prescription of specific course requirements for admission, the undergraduate prelaw major has usually been a matter of student advisement, useful for administrative purposes but of little educational importance. Public criticism of the quality of undergraduate education has recently, however, prompted legal educators and lawyers to reconsider their traditional distrust of formal course- or curriculum-related entrance requirements in order to insure that entering law students possess those intellectual and communication skills necessary, they insist, to the study of the law. In the early 1980's a special commission of the American Bar Association proposed the revision of law school admission policy in the direction of recommending or requiring applicants to prove exposure to intensive and extensive critical reading, analytical logic, and effective oral and written communication in specific courses or curricula; and, although no significant change of admission requirements came out of this debate, there are signs of a shift among undergraduate prelaw advisers in favor of specifying, within liberal arts programs, particular courses of instruction in natural science and mathematics, English composition, philosophy, and law-related courses in the social sciences and humanities capable of transfering those intellectual and literary skills and a sensitivity to moral issues deemed requisite for the study and practice of law.

QUALITY CIRCLES - A LESSON FROM INDUSTRY: AN APPROACH TO STAFF TRAINING AND MANPOWER UTILIZATION

Carol Rocklin Kay
Robert D. Love
Iowa State University

ABSTRACT

Consumer demand for "quality" products and services has forced many organizations to examine the role of worker participation activities. Quality circles provide one example of such an activity. Although relatively new in the western world, participative management techniques have been credited with the phenomenal growth in the economic and industrial strength of Japan. As a result, quality circles are considered by many to be a Japanese innovation. A close examination of their evolution, however, reveals that the idea was originally proposed by two American authorities on quality control, Dr. W. Edwards Demming and Dr. Joseph Juran.

This paper reports on the success of a pilot quality circle project implemented at Iowa State University. The project was initiated in early 1982 by a steering committee composed of managers of the various departments involved, and individuals active in human resource development training. The objectives of the project were: to promote cost reduction, to improve service quality, to promote active job involvement, to reduce errors, to develop more effective teamwork, to create "problem solving" and "problem prevention" attitudes, and to promote personal development. The project provided for the development of three pilot circles: one involved white collar workers in the purchasing department, a second involved blue collar workers in the physical plant and the third involved clerical staff in the engineering extension service. The focus of the paper is on the development of the circles; their expansion within the university; and their impact on the university community.

EDUCATIONAL TECHNIQUES AND TECHNOLOGIES IN FOREIGN LANGUAGE LEARNING: THE FUTURE IS NOW

Suzanne E. Lindenau
University of Georgia

Helping teachers teach and students learn foreign languages effectively and efficiently is not an impossible assignment. Today, more so than ever before, we have the tools to help teachers teach more effectively. We have the tools to help students learn more efficiently. In short, we have the educational techniques and technologies which--if properly integrated and carefully used across the foreign language curriculum--can significantly improve teaching and learning. Truly, the future is now!

The purpose of this presentation is two-fold: first, to look at three foreign language teaching techniques or strategies--detailed narration (DN) in beginning courses, directed practice (DP) in intermediate courses, and active participation (AP) in advanced courses; and secondly, to examine the role of technology in these instructional strategies.

Educational techniques and technologies, in and of themselves, are not teachers. They can--when properly integrated into the curriculum--dispense and help teachers organize information effectively and dramatically. They cannot--nor will they ever--inspire, convince, or motivate the learner to understand why he or she should motivate himself or herself to learn, to discover what it means to be a member of the family of man. Inspiration is, after all, the legacy of a great teacher, not the heirloom of a binary code.

Abstract

TRENDS IN GRADUATE RECORD EXAMINATION SCORES AS A MEASURE OF CHANGES IN QUALITY OF UNDERGRADUATE STUDENTS: A 15 YEAR STUDY

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University of Windsor

Although the quality of undergraduate university education is a perennial issue, the topic has recently received increased attention as a consequence of financial and political pressures. It has been suggested, for example, that the combined impact of decreased faculty and increased student numbers has eroded the quality of undergraduate instruction and seriously compromised achievement levels of graduating honours students. Further, it is accepted by some that inflation of grades has been a continuous trend at the undergraduate level and has seriously undermined the quality of students applying to and accepted by graduate schools. Data collected in our department do not support these assertions. If there is a trend it appears to be a positive one. As measured by the only standard score available, the Graduate Record Examination, recent students score somewhat better than students did ten or fifteen years ago.

THE DEAN FOR UNDERGRADUATE STUDIES: AN AMERICAN PHENOMENON

Robert E. Shoenberg
The University of Maryland

The position of Dean for Undergraduate Studies began to appear in American colleges and universities about 15 years ago. This deanship--or associate vice-presidency or even vice-presidency--was originally created as a response to undergraduate student concerns about the lack of attention paid to their education at large graduate and research oriented universities. The Dean for Undergraduate Studies typically reports to the chief academic officer of the university. Because the dean is not the dean of a faculty, he or she can focus attention exclusively on the academic interests of undergraduate students.

Functions characteristically assigned to the Dean for Undergraduate Studies include academic advising, particularly the advising of students who have not chosen a major; the general education program; interdisciplinary studies; and instructional improvement activities. The comparatively low level of importance faculty typically assign to these activities means that the undergraduate dean must work against the dominant tendencies of the university.

The activities characteristically assigned to this dean are not carried on at all by most universities outside the United States and Canada. For most of the world, higher education means exclusively a specialized education. Students place themselves under the academic guidance of faculty who expect them to know what they want to study and have a relatively clear idea of the future toward which they want to work. The Dean for Undergraduate Studies, on the other hand, is likely to preside over that peculiarly North American phenomenon of general education and those activities that support students in exploration and individual choice.

DO TEACHERS NOTICE TEXTBOOK FLAWS ?

V. Phillips Weaver
The University of Maryland

Abstract

Beginning in grades four, five and six, school children are increasingly dependent on expository text books. From these books they learn about the world around them. But many text books contain "inconsiderate text" material, which makes learning difficult, particularly for younger learners and for those with limited backgrounds.

A research team* at the University of Maryland selected five characteristics of "inconsiderate text" for study. Seventeen seniors who were student teaching were given a social studies text containing examples of the characteristics. When directed to note text problems and to provide instructional plans to compensate, only two of the subjects pointed out the flaws or provided instructional remedies.

This research raises questions about (1) the texts to which young learners are exposed and (2) about the ability of teachers to detect text flaws. How can we teach critical reading to learners of any grade level if we expose them to "inconsiderate text" and do not help them to notice the flaws? It can be argued that the broadly documented increase in reading problems in the intermediate grades is due in part to flawed expository text books together with an absence of instructional compensation.

* In addition to the author, Ruth Garner, Wayne Slater, Mildred Cole and David Williams.

APPROXIMATED DIRECTED GRAPH OF FUZZY GRAPH

—— An Application to Instructional Design in Higher Mathematics ——

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Abstract

It is interesting to find the global characteristics of a fuzzy graph and represent it as a directed graph. The result is applicable to the instructional design in education, the sociometry analysis in psychology and so on.

In this paper, we summerize the extraction method for finding out the global structure of a fuzzy graph and discuss the practical application to the instructional design and revision in Mathematics from educational point of view.

MATURE OVERSEAS STUDENTS

IN HIGHER EDUCATION

S.M. Durojaiye and G.A.H. Donald
University College, Cardiff

ABSTRACT

Mature overseas students are part of the student community in Britain and in other European and North American countries. Student counselling services can take the needs of such students into account if information on the anxieties faced by such students is made available to them. This paper presents data from 199 mature overseas students from Nigeria, other African countries, Malaysia and Hong Kong. The students' personal anxieties in adapting to life in the UK, in their academic work and expectations are identified, as are some support systems found helpful. Anxieties in relation to children and family overseas are also presented with a view to equipping staff to help such students anticipate and deal with these anxieties. Suggestions are made for making support services more effective and relevant to the students.

DISPELLING THE MYTH OF A HOMOGENEOUS FRESHMAN CLASS

Mary Ellen Freeley, Ed.D.
Ralph Napolitano

College of Mount St. Vincent

ABSTRACT

American education has made a complete circle toward the goal of providing educational opportunities at all levels. From the humble origins of the common school movement which provided a free elementary education for all who sought it, education has evolved into an Open Admissions policy for many colleges.

That colleges are now accepting students who may lack basic skills in reading and writing presents a dilemma for their administrators and faculty. If institutions of higher learning extend the privilege of higher education to marginally and underprepared students, a systematic approach to helping those students must be identified and implemented. Certainly a beginning step would be to determine students' preferred styles of learning and then experiment with accommodating them as much as possible.

The past decade has witnessed many investigations at both the elementary and secondary levels that examined the relationship between learning style and other selected variables. Those investigations have revealed improvements in grades, attitudes, and attendance when students' styles were matched with their environmental, emotional, sociological and physical preferences. Extrapolating from that research base, these authors report on an initial attempt to diagnose learning style preferences of a heterogeneous freshman class as well as on an investigation in progress.

A CRISIS INTERVENTION MODEL IN COLLEGES

Rita Ghatak
I.I.T. Madras
India

ABSTRACT

During the development of the guidance movement in education, the world over, significant changes have occurred in concepts of the role and responsibilities of guidance programs and techniques.

Indian and U.S.A. statistics reveal increasing enrollments in colleges, and with greater numbers and enhanced academic pressures, individual counseling seems to be becoming more and more difficult. Guidance programs are now focusing on group faculty, peer and trained counselor intervention strategies. Colleges with mental health services are planning preventive and remedial strategies to prevent and check student casualities as a consequence of low student involvement and motivation.

The present paper proposes a model for a stage prevention and a stage remedial intervention guidance program within the college milieu. The model takes into consideration a quick recognition of behavioral problems in students and an intervention strategy during the students first year in college to facilitate early adjustment to the college environment.

84

THE PROBLEM OF ADMITTING SOCIALLY BACKWARD STUDENTS IN ELITE INSTITUTIONS

Prof. P. V. Indiresan
Indian Institute of Technology, Madras, India

ABSTRACT

In India, the systematic discrimination practiced over centuries in the name of the caste system has resulted in the denial of educational opportunities to a section of the community. These people have regressed to such an extent that they are not in a position to compete on equal terms with other communities. To alleviate the problem of this backward communities, the Government of India follows a policy of reservation in all State-owned educational institutions.

The Indian Institutes of Technology (IITs) in India are very prestigeous elite institutions, which attract highly talented students from the upper strata of the society. Based on the reservation policy, admitting ill-equipped students from the socially backward classes in these elite institutions has lead to a number of academic, social, psychological and political problems. This paper makes an attempt to look at the criterion of backwardness for admission purposes from a more objective and easily measurable perspective, rather than base backwardness on the sole criterion of caste. It is argued that the application of these criteria would result in more equitable social justice than what is being practised so far.

A STUDY OF THE LEARNING EXPERIENCES OF AT-RISK AND REGULARLY ADMITTED COLLEGE STUDENTS

Judith B. MacDonald
Montclair State College

Half of the students who enter American institutions of higher learning do not obtain degrees. Students who are academically disadvantaged, black or Hispanic face even higher attrition rates. Since 1981 Montclair State College has included in its freshman class about ten percent of these vulnerable students and has provided them with academic and counseling services.

This study explores the learning experiences of these students, comparing them with regularly admitted students, and focuses on their perceptions of their development as learners and their assessment of effective learning settings and teaching approaches. The contributions of students from both groups have relevance for prospective college freshmen, faculty, and administrators.

IMPROVING THE ABILITY
TO STUDY OF ENGINEERING STUDENTS

Dietrich Brandt, Robert Sell

The Technical University Aachen, W-Germany

A b s t r a c t

The activity of studying can be seen as the main strand in a three-stranded structure of studying. The three strands are:

I Being a Student
II Context of Studying
III Actions of Studying

Because of the interaction between these strands, it is obvious that we need to consider all three strands if we wish to improve the student's ability to study. A programme designed to achieve this overall aim would need to be comprehensive comprising courses on

- study skills and study habits
- oral and written communication, cooperation, working in a group etc.
- problem-solving skills etc

Staff development programmes aimed at improving teaching, should also be seen as integrated into this comprehensive approach to improve teaching and learning.

In the paper, we describe a course on problem-solving as an example of how approaches to improve teaching and learning can be linked. We furthermore report on preliminary results of evaluation of our activities to improve the ability to study.

TEACHING CRITICAL THINKING

James E. Caraway
The University of Tennessee

Critical Thinking should be an integral component of each and every course in which students are involved. Any course should aid the student to improve his/her ability to think clearly and correctly, communicate effectively, and make judgments which they can reasonably support. In this essay on Critical Thinking, I am trying to lay the groundwork for subsequent discussion of the topic. In so doing, I discuss several dimensions--by all means not every dimension--constitutive of critical thinking. These include the phenomenological method and its three components of "descriptive analysis," "subjective intentionality," and "free imaginative variation." Next, I discuss the Socratic method as a resource for Critical Thinking, emphasizing that the dialogical questioning and answering is to be used as a tool for greater understanding, and not as a weapon to "get at" or defeat someone. Finally, I briefly describe some logical reasoning skills which can contribute to correct reasoning and hence more precise understanding.

My conclusion is that although emphasis on Critical Thinking skills should be included in all courses, this does not preclude developing specific courses to assist students in developing Critical Thinking skills. I suggest that perhaps both students and professors could profit from taking such courses.

THE APPLICATION OF IMAGINAL EDUCATION AND LIFE METHODS IN THE UNIVERSITY SETTING

Mary-Kaye Soderlind
The University of Maryland
European Division

The effectivness of the lecture method which has long been used as the standard of university teaching is being called into question from a variety of sources. In contrast to the traditional lecture method, imaginal education operates from a series of propositions which create an atmosphere in which the learner is an active participant, capable of internalizing images which can then be used as agents of change in his or her life.

Imaginal education and the art form method which it embodies is contentless in that it can be used in any situation through asking questions at four levels-- the objective, the reflective, the interpretive and the decisional.

The purpose of this paper is to discuss imaginal education as it relates to lectures, seminars, workshops and conversations, all of which are viable possibilities for university teaching. The examples, which are a result of the author's experimental teaching methods in psychology, sociology, and education courses, are not meant to be definative. Rather, they are meant as a prototype from which others can create their own models.

EVALUATING EDUCATIONAL TECHNOLOGY: QUALITY AND PRODUCTIVITY

Irving H. Buchen
University of Wisconsin

Educational technology is resurfacing as a potential force and promises to have a significant impact on higher education. Two issues compel a pro-active rather than a reactive response. First, there is a woeful lack of evaluative knowledge undertaken by faculty of these new programs. Second, educational technology is being pushed because of its potential cost-savings. The co-joining of the issues of quality and productivity suggest that the time is ripe for a comprehensive evaluation of educational technology.

To evaluate educational technology requires three major analytical phases. First, a taxonomy of educational technology by function has to be compiled. Second, the audience or clients and their needs have to be specified. Third, the criteria of educational comparability and productivity have to be established. One of the unexpected benefits of discipline-focused evaluation of programs is the prospect of faculty development. Where that process involves a number of teachers in the same department, the faculty development can be directed, structured, and individualized.

THE ELECTRONIC UNIVERSITY: ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION

Fred Miller
Murray State University

Abstract

The impact of computers on society, social systems, and educational institutions, particularly institutions of higher education, has already been enormous. In the next 10 to 15 years, that impact will increase tremendously, both quantitatively and qualitatively. The key to this phenomenon will be the computers being developed in the research labs of the world; computers which can reason, learn, process information, and communicate with humans. "Artificial Intelligence" (AI) might well produce the Industrial Revolution of the intellect. If it does, higher education and the professional lives of higher educators will undergo profound change.

The purpose of this paper is to project some of the more important impacts of AI systems on higher education. After defining terms and describing the current state of AI research, I will describe the AI based "Electronic University" and the contributions it might make to higher education. I will then discuss the changes in the roles and activities of educators in this type of institution and discuss some of the philosophical and moral questions raised by these prospects.

Abstract

HOW COSTLY ARE COMPUTER BASED INSTRUCTIONAL SYSTEMS? A LOOK AT TWO APPROACHES

George A. B. Moore
University of Guelph

An increasing number of universities are investing in computer based instructional systems but the costs of operation are in dispute. Alpert and Bitzer's estimate of costs per student hour for PLATO has been challenged by Kearsley while Hofstetter attempts to demonstrate a more favourable cost for the University of Delaware's PLATO system. This paper demonstrates that the PLATO costs are higher than its proponents claim. A cost analysis of the VITAL microcomputer based system is offered as an alternative to the high cost entry into CBI via mainframe system. (For a description of the instructional applications of this system see VITAL: A videotex Integrated Teaching and Learning System for Education and Training).

COMPUTERLINGUISTICS - A CHALLENGE IN CURRICULUM DEVELOPMENT

Anne Hawkins & Martin Kwot

Rijksuniversiteit Utrecht

SUMMARY

The general increase in computer awareness and non-mathematical applications has led to a significant growth in demand from students in the Arts Faculty of the University wishing to pursue relevant courses; whereas there were 7 students in computerlinguistics in 1982, in January 1985 a total of 75 students reported for the new semester. This paper describes how the demand has been met with the problem-solving approach maintained and improvement in student achievement in terms of success and time spent. Whereas previously some students needed six months, or even failed, to complete assignments since the introduction of the new system all students have completed them successfully within the required two weeks following each course (module).

The success of the course is attributed firstly to the introduction of a modular system in which modules are considered to be relatively self contained and relatively self instructional. An hierarchical structure within and between modules is achieved through consideration of objectives in terms of classes of problems to be solved. Interaction between modules is not however excluded.

It is considered that the key to meeting the challenge in an area of curriculum growth such as is here exemplified is the establishment of an effective system of producing high quality curriculum materials. A step wise (trial and modify) approach in which the students themselves are involved is of mutual benefit.

Above all, modular course design has been considered as a support for creative teaching rather than a constraint.

ABSTRACT

THE PRACTICAL COMPONENT OF THE TRAINING PROGRAMME
OF STUDENT TEACHERS BY MEANS OF DISTANCE EDUCATION

L.R. McFarlane
University of South Africa

The training programme of teachers rests on two pillars - the theoretical study of the different part disciplines of education, and the practical application of this background knowledge in the actual classroom situation. To provide adequately for the latter in teletuition, necessitates a special strategy.

The University of South Africa, one of the oldest distance education institutions in the world, caters for the practical component of the course in the following way:

1. Video-tapes and a conference telephone discussion with lecturers are used to inform students about the concept of microteaching and how to prepare a lesson.

2. An auto-didactic package-deal assignment on microteaching. This includes full particulars about various teaching skills as well as self-evaluation instruments.

3. A ten-week structured practice teaching programme at a school where students are required to research independently certain aspects of the school programme outside the classroom. Apart from this, a total of 20 lessons must also be planned and conducted in the presence of the responsible subject teachers, who must comment on the performance of the student and report back to the University.

In this way tertiary distance education institutions can make a considerable contribution towards the training of student teachers, especially in those countries where there is a dire need for qualified teachers, and full time study at a residential university is not possible.

EVALUATION OF INDEPENDENT STUDY IN AN EXTERNAL DEGREE PROGRAM

Joseph Travaglini
Central Michigan University

ABSTRACT

Perhaps the greatest problem with independent study as a strategy for learning is that students will not complete the work required. The lack of interaction with and feedback from an instructor and classmates is thought to foster an isolated learning environment. However, adult students have been particularly capable of functioning in the independent study environment because of greater acceptance of responsibility for active participation in their learning.

Central Michigan University's Individualized Degree Program for adult students emphasizes independent study as the principal learning activity in a distance learning situation. In addition to University Correspondence Courses, a number of courses have been adapted to a self-study format, enabling students to complete course requirements at home. These highly structured courses are called "Learning Packages." In an effort to evaluate the effectiveness of the independent study approach, especially the learning packages, a study has been made of IDP student experience with such courses in 1983-84. The following areas were examined:

1. The number of students who registered for one or more learning package and/or correspondence study course.
2. The completion rates of learning packages and correspondence courses.
3. Grades' distributions and comparison with classroom grades' outcomes.
4. Average independent study course loads in the year.
5. Male-female ratio of activity.

These data are presented and discussed with the conclusions that learning package study compares favorably with classroom study in outcomes examined, but that more study is needed regarding student activity levels, particularly among male students.

CAN CHANGES IN PROFESSIONAL ATTITUDES BE CATALYZED BY COURSEWORK IN SOCIAL FOUNDATIONS OF EDUCATION

Ruth E. Frank, Ed.D

Professor of Education
Bucks County Community College
Newtown, Pennsylvania

ABSTRACT

Institutions of higher education are once more weighing the importance of including and of sequencing coursework in teacher training in their undergraduate curriculum. The research described in this paper addresses itself to the results of providing this training.

Thirty-two (32) individuals were given the Minnesota Teacher Attitude Inventory during the first meeting of a "Foundations of Education" class. During the last class session the test was once more administered to the same students. Through careful selection of course content, class involvement, individual assignments, and a great deal of interaction, measurable changes in attitude could be ascertained after one semester.

If properly planned, "Foundations of Education" courses can serve as a catalyst to further professional development of the student, be useful in career guidance, and provide new information about the education profession. This course can also be of benefit as a tool to screen out those individuals from the profession who would be poor risks as educators, and/or marginal in their contributions to the learning environment.

Since the research for this paper was done some time ago, further validation may be desirable at this time. It may be of particular interest to investigate the application of this approach, and of the evaluative tool in other counties where similar goals in education are aspired to.

Abstract

MEASURED CHANGES IN SOCIAL DISTANCE AS AN OUTCOME OF HIGHER EDUCATION EXPERIENCE

Davor Jedlicka
University of Texas at Tyler

Vjeran Katunaric
University of Zagreb

This study evaluates effectiveness of ethnic relations courses in sociology to reduce prejudice among prospective teachers. Data on ethnic prejudice as measured using the Bogardus Social Distance scale, were gathered from a sample of upper division college students attending an East Texas university. Results were compared to 12 samples found in related literature since 1926. Levels of prejudice measured here exceeded any previously reported measurements for white or predominantly white college students in America. We then divided our sample into a control group and an experimental group. The experimental group was composed of education majors taking a required ethnic relations course in sociology. The students in the control group were enrolled in various social science courses. The level of prejudice was measured at the beginning and at the end of the semester. The level of prejudice was significantly reduced in the experimental but not nearly as much in the control group. Based on this evidence and on the related literature on education and prejudice reduction, we conclude that required courses in ethnic relations are highly recommended for students preparing to be teachers in a pluralistic society.

TEACHING VALUES AND ETHICS IN THE HEALTH AND HUMAN SERVICE FIELDS

Miriam P. Lahey
The City University of New York

The question of how to teach ethical decision-making is a complex and controversial one. Increased awareness of ethical conflicts encountered in professional practice, however, suggests that it is imperative to train students to recognize ethical issues to develop analytical skills for handling such issues, to deepen their sense of moral obligation, and to increase their ability to tolerate ambiguity.

This paper focuses on issues to be considered in teaching ethics and values to students in the health and human service fields. Beginning with a rationale for the inclusion of such course material in the college curriculum, it deals with some of the major problems to be encountered, including resistances from various sources, confusion about the goals of such courses, and qualities and expectations of the students themselves. A description of such an ethics course is presented, indicating methodologies with emphasis on a blend of practical case material with major ethical theories. Finally, a model is proposed for use in ethical case workups.

INTEGRATING ETHICAL ISSUES INTO ENGINEERING COURSEWORK

Heinz C. Luegenbiehl

Rose-Hulman Institute of Technology

ABSTRACT

Given the fragmentation of the current curricula in engineering, it is necessary that means be found through which students can be given additional exposure to non-technical concerns. This paper addresses the integration of the curriculum in relation to professional and ethical issues. Two specific problems are dealt with: 1) The competency of engineering instructors in non-technical fields, and 2) the methodology to be employed in introducing such issues in the classroom. Although the scope of the paper is restricted to ethics and professionalism, the discussion could be applied to a variety of liberal studies fields.

The paper concludes that not only can engineering educators deal with ethical issues, given the nature of professional education, they must. Furthermore, there are no insurmountable barriers standing in the way of their doing so. The goal of engineering education is the developing of autonomy, both in relation to the technical and to the non-technical dimension of professional life. In both instances this goal can best be achieved through an emphasis on the ideal of rational reflection. Once it is recognized that the methodology of all college coursework should be based on a common foundation, instructors of technical subjects will be more likely to venture outside the areas of their perceived expertise. Several examples of how this can be accomplished in relation to ethical issues, without detracting from the subject-matter content of technical courses, are included in the paper.

THE ROLE OF HIGHER EDUCATION FOR THE TEACHING OF STUDENT VALUES

Fred W. Smith, Ph.D.
Rochester Institute of Technology

ABSTRACT

Responsibility for the development of values by college students is currently an issue of heightened interest and concern throughout American higher education. The literature of higher education seems to reflect disagreement and confusion about the responsibility for values education and uncertainty about the potential for fulfilling responsibility for values.

The diminished impact of colleges on student values stems from dramatic changes that have occurred in higher education in the last 50 years. Examples are the expansion of large impersonal universities, the demise of *in loco parentis* as the basis for student-institutional relationships, the impact of faculty collective bargaining, and the rebellion against authority by students in the sixties.

This paper addresses the role of colleges and universities for teaching values and offers some perspectives on how values education can prepare students for effective personal and civic life. The basic thesis is, 1) that our society needs an educated citizenry that cares about society's welfare and that is capable of making sound decisions about social issues; 2) that young people feel pessimistic about their world, feel powerless to change it, exhibit behaviors that are personally and socially destructive and show limited interest in and ability to address social issues; 3) that higher education has deminished its role in teaching values and, 4) that higher education has a responsibility to teach values; and 5) that colleges and universities should address this problem in a more deliberate and effective way.

The dynamics of teaching and learning values is complex and, therefore, a comprehensive approach is required. Values are learned through the combined impact of knowledge, experience, example, behavior control, mentorship and campus environment.

FACULTY DEVELOPMENT SEMINARS: AN ANALYSIS OF APPROPRIATE TOPIC SELECTION AND FORMAT

Robert A. Bernoff
The Pennsylvania State University, Ogontz Campus

Abstract

During the period 1978 to 1984, the author has presented twenty-one seminars on "Effective Teaching Techniques." These seminars involved three hundred and thirty-three college or university faculty members representing over twenty disciplines and one hundred and fifteen persons from private businesses or governmental agencies.

The characteristics of the participating groups, the seminar objectives, the seminar topics, the time format, the presentation mode and the outcomes of seminars are all described.

Participants pre-seminar preferences, mid-seminar feedback and post-seminar evaluations were found to be consistent for all groups. Although the seminars were not designed as a research study, the large number of participants (N=448) and the similarity of their responses made post-hoc analysis possible. The principle conclusions are:

1. Teachers who have had no formal teacher training are very receptive to ideas and practices for which they see direct classroom applications.
2. College faculty are receptive to learning theory when it is used to support practical teaching techniques. However, learning theory presented alone or before the discussion of specific teaching techniques may be rejected.
3. Modeling of teaching techniques as part of the teaching process is a powerful tool which helps to gain acceptance of the material presented.

A SELF-MANAGED SYSTEM FOR STAFF DEVELOPMENT

Bryan L. Button* and Derek Kalyanvala

Coventry (Lanchester) Polytechnic

ABSTRACT

A self-managed system for staff development has operated for three years in the Department of Mechanical Engineering which has contained twenty-five academic members of staff. The system has encouraged and supported part-time research and teaching developments by the award of twelve hundred hours of allowances per annum. These allowances have been treated in the same way as those for administration and timetabled activities. Every member of staff has been allocated a profile of allowances and activities which have added up to approximately five-hundred hours.

To apply for an allowance a member of staff has had to submit a written proposal in one of four categories: research with a higher degree registration, research without a higher degree registration; the introduction of new technology into our teaching or the preparation of publications on work which had been carried out without an allowance. For an ongoing proposal to be considered it has to include a report on the previous year's achievements. The proposals are considered by a committee of five members of staff from within the Department. The guidelines that have been developed and used are given. The evolution of the system is described. The pattern of allowances that have been awarded before and after the introduction of the system are discussed. The benefits of using the system are given.

* Now at Trent Polytechnic Nottingham

IMPROVING UNDERGRADUATE TEACHING THROUGH FACULTY DEVELOPMENT

Kenneth E. Eble
University of Utah

ABSTRACT

This paper describes a major effort by the Bush Foundation of St. Paul, Minnesota, U.S.A., to improve undergraduate learning by supporting faculty development in almost all of the four-year private and public colleges and universities in a three-state area---Minnesota and North and South Dakota---of the United States. The 45 individual colleges and universities involved in this program embrace a total faculty of over 9,000 and serve more than 250,000 full-time students. The success of the individual programs supports the general claim that faculty development efforts can improve undergraduate teaching in a variety of ways.

Individual institutions supported by the Foundation grant developed their own programs which strongly emphasized faculty ownership. Activities were favored which would not only have an impact on individual faculty members but also on the collective faculty and instructional program. Almost all the programs provided for grants or released time to support activities aimed at the facuty member's professional growth or specific instructional development. The great majority of programs supported activities both for individual faculty and for groups. As measured by the successful carrying out of proposed activities, all of the campus programs succeeded. A surprising finding was that faculty morale at these institutions was high contrary to recent reports emphasizing low morale.

FACULTY DEVELOPMENT IN ACTION: A MODEL FOR "THE NEW BASICS"

Barbara J. Millis
The University of Maryland Asian Division

ABSTRACT

Two recent reports on American education, "A Nation at Risk: The Imperative for Educational Reform" and "Involvement in Learning: Realizing the Potential of American Higher Education," emphasize the need to promote a "Learning Society." The focus of education must be on student learning and the faculty who direct it.

The American Association of Higher Education (AAHE) Task Force on Professional Growth has issued a report expanding the traditional boundaries of faculty development. It outlines a set of premises called "The New Basics" for the academic realities of the 1980's and 1990's. The University of Maryland Asian Division (UMAD) has been following for years a program of faculty development compatible with the "New Basics." Its program evolved not from the "contraction of opportunities" cited in the AAHE report but in a teaching-oriented program in a nontraditional campus setting with an unusually gifted, versatile faculty. The UMAD model therefore shows the possibilities and promises of an eclectic approach to the personal and professional growth of faculty. Activities include teaching workshops; faculty involvement in curriculum development; consulting and public service projects; in-house consulting; travel and cultural opportunities; and teaching development grants.

A BRIEF OUTLINE OF PROPOSALS FOR IMPROVEMENT OF PROFESSIONAL TRAINING OF UNIVERSITY TEACHERS: A CASE FOR A DIPLOMA IN TEACHING IN HIGHER EDUCATION

Janek A. Wankowski, Ph.D., M.A.,
University of Birmingham
Faculty of Education and Educational Counselling Unit

An Abstract

This paper is concerned with the problem of Motivating and Rewarding Faculty. Three modes of motivating are mentioned: "Idealistic", "Coercive" and "Pragmatic". Some data of attendance of faculty at the induction courses and workshops of the training schemes, run on the "Idealistic" model, are presented and discussed. This data pertains to the schemes of training in one British University. The paper discusses the shortcomings of the "Idealistic" solution against the background of the traditional attitudes prevailing amongst the faculty. It offers a very brief outline of an alternative scheme on the lines of the "Pragmatic" model. The "priming mechanism", for improvement in the teaching skill and in the interest in pedagogics, being a financial remuneration for possession of a Diploma in Teaching in Higher Education.

THEME SESSIONS, SEMINARS, SYMPOSIUM, CASE STUDY

Theme Presentations	Time		Description Begins on Page Below
Quality Control in Higher Education: A Comparison of Current Issues in Three Countries	Wed.	0830 - 1000	82
Academic Stress: Research Findings on Causes and Coping Mechanisms	Wed.	0830 - 1000	85
How "Universal" Is Post-secondary Education? A Look at Intercultural Differences	Fri.	1030 - 1200	88
Institutional Approaches to Academic Improvement	Fri.	1030 - 1200	93
Seminars			
Interactive Video: A Special Area in Its Own Right or Just an Illustrated Form of CAI?	Wed.	1330 - 1700	95
International Evaluation and an Electronic Document Delivery System	Thurs.	0900 - 1200	96
New Technology and Student Learning	Thurs.	0900 - 1200	101
Improving the Teaching-Learning Process through Multiple Sources of Feedback (M.S.F.) - A Norwegian Case Study	Fri.	0830 - 1030	103
Symposium			
Advanced Collaborative Symposium on the Applications of Cognitive Models to College Teaching	Wed.	1330 - 1530	106
Case Study			
An Institutional Approach to Academic Improvement: An In-Depth Case Study: The Center for Instructional Development at Syracuse University	Fri.	1400 - 1530	107a

THEME SESSION

QUALITY CONTROL IN HIGHER EDUCATION: A COMPARISON OF CURRENT ISSUES IN THREE COUNTRIES

PRESENTERS:

Patrick M. Callan
Director
California Postsecondary Education Commission
U.S.A.

Gerald T. Fowler
Rector
North East London Polytechnic
England

Lennart Levin
Professor
National Board of Universities and Colleges
Sweden

Abstract

QUALITY CONTROL IN HIGHER EDUCATION:
CURRENT ISSUES IN BRITAIN

G T Fowler
Rector, North East London Polytechnic, U.K.

1. British universities have relied traditionally on maintenance of standards by internal peer-groups, networks of external professional bodies, and external examiners for their degrees. Oxford and Cambridge do not even use external examiners for first degrees, relying on the collegial nature of the university to ensure cross-checks. The Reynolds Committee, chaired by the Vice-Chancellor of Lancaster, is presently examining university validation.

2. Some 'public sector' colleges still use universities to validate their courses. Most, including all polytechnics (or 'vocational universities') go to the Council for National Academic Awards (CNAA) for the validation of degree courses and to the Business and Technician Education Council for that of higher technician courses. These bodies use academics from other institutions to judge allocation of resources (including human resources), syllabus and curriculum, and the propriety of examining methods. Professional bodies may pass a separate judgement on the same vocational course. The expense of this system is great; it is partly for that reason under investigation (April 1985) by the Lindop Committee, appointed by the Minister.

3. Professional networks link the university and non-university sectors, as does service on CNAA Boards. They may however also seek to restrict entry overall, with the purpose of maintaining practitioner salary levels, but the accidental side-effect of raising standards. Sometimes (e.g. Civil Engineering 1976, Architecture 1984) this causes controversy.

4. Resource distribution differs as between the university and the public sectors. In the former it seems concerned with the provision of incentives to excellence (or of reward for it), and in the latter with equalisation irrespective of merit or need. Both systems have occasioned controversy.

5. 'Process' is in the universities inspected by no one, and in the public sector by Her Majesty's Inspectorate. They thus do a different task from e.g. CNAA. The problem with this body (a semi-independent organ of the Department of Education) is that they effectively operate a system of 'we advise - and we consent'.

6. The Minister ('Secretary of State') seems particularly concerned with two issues: (i) possible indoctrination in the social studies/sciences; (ii) standards in teacher education, where yet another Committee is advising him.

7. The inexorable rise in the volume of material studied in any course is matched by the equally inexorable pressure on institutional resources. This may mean that standards stay the same, or even rise. Or it may mean that professional networks become conspiracies, concealing the evidence of under-resourcing and lower standards, to save jobs.

QUALITY CONTROL IN HIGHER EDUCATION: A COMPARISON OF CURRENT ISSUES IN THREE COUNTRIES. THE CASE OF SWEDEN.

Lennart Levin
The National Board of Universities and Colleges
Stockholm, Sweden

In Sweden, as in many other countries, systematic quality control has grown more interesting as the resources for education have dwindled (or at least not been increased). Although maintenance of quality in both instruction and research should be universal concerns, it is only natural that quality issues come to the fore in particular when cuts, or re-disposition of resources, have to be made.

In current Swedish debate, critics of the recent university reform claim that democratization of higher education, widened access, etc., have been achieved at the cost of quality. Similarly, critics hold that the abolishment of the faculties and, on the whole, the present conditions for Swedish researchers, are detrimental to research quality. The present paper aims at analysing the arguments and to discuss various measures undertaken in Sweden, by the government, the institutions and the research community itself, in order to enhance quality. The pressure exercised by various external forces are also being discussed. Finally, the epistemological side of the concept of quality is commented on in the light of a research project aimed at penetrating the criteria used, or supposed to be used, among "peer groups" in estimating research quality. The quality debate in Sweden has its counterpart at the school level. The latter is commented on in passing but, for obvious reasons, is not treated in depth in the present paper.

T H E M E S E S S I O N

ACADEMIC STRESS: RESEARCH FINDINGS ON CAUSES AND COPING MECHANISMS

PRESENTERS: Arye Perlberg
Professor
Department of Education in Technology and Science
Technion - Israel Institute of Technology
Israel

Peter Seldin
Professor of Management
Pace University
U.S.A.

ACADEMIC STRESS:

RESEARCH FINDINGS ON CAUSES AND COPING MECHANISMS

PETER SELDIN
PACE UNIVERSITY
U.S.A.

ARYE PERLBERG
TECHNION
ISRAEL

THIS THEME SESSION WILL FOCUS ON STRESS IN HIGHER EDUCATION.

THE PRESENTATIONS WILL BE RESEARCH-BASED. THE FIRST, BY PETER SELDIN, WILL EXAMINE SPECIFIC CAUSES OF ACADEMIC STRESS SUCH AS: 1) LACK OF FACULTY PARTICIPATION IN INSTITUTIONAL DECISION - MAKING; 2) DEALING WITH APATHETIC FACULTY COLLEAGUES; AND 3) EXPERIENCING FACULTY EVALUATION POLICIES AND PROCEDURES AS A CANDIDATE FOR PROMOTION OR TENURE.

THE SECOND PRESENTATION, BY ARYE PERLBERG, WILL FOCUS ON SPECIFIC MEANS OF COPING WITH ACADEMIC STRESS. BOTH LONG-RUN AND SHORT-RUN COPING MECHANISMS WILL BE DISCUSSED. AMONG THE METHODS ADDRESSED WILL BE STRESS REDUCING TECHNIQUES SUCH AS: 1) RELYING ON A PROFESSIONAL SUPPORT SYSTEM; 2) DEVELOPING A BALANCED PATTERN OF LIVING; AND 3) RELAXATION TECHNIQUES.

THE PRESENTATIONS WILL BE COORDINATED AND PLANNED WITH INTEGRATION OF CONTENT AND PROCESS IN MIND.

BECAUSE THE THEME - ACADEMIC STRESS - IS BOTH CROSS-DISCIPLINARY AND CROSS-CULTURAL, MANY NEW AND EXPERIENCED FACULTY AND ADMINISTRATORS ATTENDING I.U.T. WILL FIND THE SESSION PERTINENT, IMMEDIATELY USEFUL AND ENJOYABLE.

ACADEMIC STRESS: RESEARCH FINDINGS ON CAUSES AND COPING MECHANISM

ARYE PERLBERG

TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY

The effects of stress on the physical and psychological well being of people in different professions and occupations, have become, in the last decade, the focal interest of researchers and clinicians. Compared to other professions, studies on stress in academe are limited and almost no attention has been given to the problem of effective coping mechanisms with stress and its manifestations, such as tedium, wear and tear, and burnout. The purpose of this paper is to discuss the basic inherent sources of stress in academic life and propose coping mechanisms which faculty could adopt in combating stress and burnout. In doing so we will rely mainly on the following Coping Grid proposed by Pines et al (1981).

Coping Grid

	ACTIVE	INACTIVE
DIRECT	• Changing the source of the stress • Confronting source • Adopting a positive attitude	• Ignoring source of the stress • Avoiding source • Leaving
INDIRECT	• Talking about the source of stress • Changing self • Getting involved in other activities	• Alcohol or drugs • Getting ill • Collapsing

Pines, Ayala, M.; Aronson, Eliot & Kafry, Ditsa. Burnout: The Free Press, New York, 1981.

ACADEMIC STRESS:
RESEARCH FINDINGS ON CAUSES

PETER SELDIN
PACE UNIVERSITY

WHY DO SO MANY COLLEGE AND UNIVERSITY PROFESSORS EXPERIENCE HIGH LEVELS OF STRESS?

WHAT ARE THE SPECIFIC CAUSES OF STRESS AMONG FACULTY MEMBERS?

THIS PAPER WILL BE RESEARCH-BASED. IT WILL FOCUS ON KEY JOB-RELATED FACTORS WHICH PRODUCE HIGH LEVELS OF STRESS AMONG PROFESSORS. SOME OF THESE FACTORS ARE SURPRISING. SOME ARE QUITE SUBTLE. BUT, TAKEN TOGETHER, THESE STRESS PRODUCERS ARE POWERFUL INFLUENCES ON OUR PROFESSIONAL LIVES.

WE WILL EXAMINE THE RELATIVE IMPORTANCE - AS HIGH STRESS PRODUCERS - OF FACTORS SUCH AS:

. LACK OF FACULTY PARTICIPATION IN DEPARTMENT/INSTITUTION DECISION-MAKING

. BEING PRESSURED BY STUDENTS WHO WANT YOU TO RAISE THEIR GRADES

. FEELING THAT YOU HAVE TOO-HEAVY A WORK LOAD

. RECEIVING INADEQUATE COLLEGE/UNIVERSITY REWARD AND RECOGNITION

. ACQUIRING A NEW DEPARTMENT CHAIRPERSON

. IMPOSING HIGH SELF-EXPECTATIONS

. EVALUATING THE PERFORMANCE OF YOUR STUDENTS

. BEING EVALUATED AS A TEACHER BY YOUR STUDENTS

FOLLOWING THE PRESENTATION OF THIS PAPER ON THE CAUSES OF STRESS AMONG COLLEGE/UNIVERSITY PROFESSORS, MY CO-PRESENTER - ARYE PERLBERG - WILL ADDRESS THE IMPORTANT ISSUE OF HOW TO SUCCESSFULLY COPE WITH ACADEMIC STRESS.

T H E M E S E S S I O N

HOW "UNIVERSAL IS POSTSECONDARY EDUCATION? A LOOK AT INTERCULTURAL DIFFERENCES

PRESENTERS: Lewis R. B. Elton
Department of Educational Studies
University of Surrey
England

Edward T. Hall
Emeritus Professor of Anthropology
Northwestern University
U.S.A.

HOW 'UNIVERSAL' IS POST-SECONDARY EDUCATION? A LOOK AT INTERCULTURAL DIFFERENCES

Lewis Elton
Department of Educational Studies
University of Surrey

The talk will concentrate on the different value systems of different societies and the effects which these have on the universality of post-secondary education. The word 'universal' can be interpreted in three senses, covering (a) all knowledge, (b) all possible purposes, (c) all those who wish to take part. This leads, in the first sense, to different countries differing about what to include in post-secondary education and in what should be in its higher and less high parts. In the second sense, it leads to differences regarding subjects which are studied for their own sake and subjects which are primarily vocational. In the third sense, the concern is with access to post-secondary education, which may be restricted academically, financially, or by age, sex and race. Here perhaps more than anywhere else, value systems are crucial.

THE ANTHROPOLOGY OF TEACHING
A Personal Document

Edward T. Hall

Precis

This paper is based primarily on the 37 years of teaching Anthropology in 9 (nine) widely varied U.S. institutions of higher learning. Professional and academic groups worked with included, black soldiers during World War II, mature adults attending college on the GI bill, psychiatrists and social workers, diplomats and technical personnel at post-graduate level in the U.S. State Department, architects and industrial designers, graduate and undergraduate students and Hispanic professionals involved in field seminars in New Mexico.

Theory and traditional methods are enshrined in the culture of the Western education and one can be content with teaching according to the tenets of both as long as one eschews the real world of one's field as well as one's students. However, this speaker has always been committed not only to the real world but to the students as well.

From the beginning it was necessary to evolve ways of coping with two crucial factors: A. That it is a contradiction of terms to speak of teaching anthropology in a classroom. B. The condition of students as presented in class was generally expressed as, disaffection, boredom, artificial enthusiasm, depression, lack of true affect and anxiety.

I realize that unless the material in my anthropology courses could be made meaningful to students in a highly personal

way there would be no means available for them to integrate some of the principles that were inherent in the course. The solution chosen was to approach the individual student, as well as the classroom situation as similar to a field situation. That is, as an investigative problem involving my own culture. The model that was used was later known as an Evolving Model,[1] which, like the airplane in the days of the Wright Brothers, proceeded to "evolve" in small increments from 1942 until 1981.

In effect what I was doing was to set in motion an exercise in programming students with background and vocabulary so we could carry on a dialogue that they could then relate to their own experience. While little was obvious from the beginning, several things did become clear over the years. Higher structured lectures without ample opportunity for student input were the first to go.

It also became evident that my students knew very little about themselves. There were glaring lacunae in those areas of their lives where even a small amount of knowledge would enable them to make more of their talents in their later lives. Also a few rather basic observations of an anthropological type revealed that students: A. were lonely, B. were frequently shy and unsure of themselves and had trouble expanding their social networks, C. were unfamiliar with the basics of their own implicit culture, and D. had only the vaguest notion concerning the perceptual tools they were using in every day life. Furthermore, few of them knew what their strengths were and when they were doing something right. Almost without exception, students were unaware of their individual differences in learning styles, and modes of

perception, believing that they were typical (that is, that everyone else perceived the world as they did). That there were differences between professions, which required radically different teaching approaches, was an idea that eluded them. If there was one lesson that was learned it was that one has to learn through a continual dialogue, at least as much about one's students as one's technical field of specialization.

These observations were useful in designing projects which allowed students to learn about themselves, not in the psychological sense, but in perceptual and cultural terms. This was done in such as way that students could experience the great diversity within their own group as well as get to know each other in a more meaningful way.

Classes were non-judgmental. Requirements centered on completion of all work on time. Good work was rewarded. Numerous projects requiring independent observation and discovery of the patterns of everyday life were assigned. Students' individual talents were reinforced.

In one instance at Columbia University it was possible, since at least six cultures were represented, to use the class itself as a field resource. The decision to use ethnic data provided by students was initiated by the students and those who wished came with case material from their own lives where answers were needed. The professor simply built on what students provided. We worked together as a team.

As can be imagined, there was little support from colleagues, many of whom applied informal pressures for a more conventional didactic, structured approach. In a few instances

it was necessary to simply make a stand on the basis that the whole field of nonverbal communication and implicit culture required different techniques than those didactic methods used in other areas of study.

The primary objectives were to get students to think again, and to consciously use their senses in order to learn a few things about themselves as products of a particular culture. In the course of these experiences I also discovered that it is most important to experience strong identification as well as affective ties, not only to the group, but to each individual student.

[1]Hall, E. T. "A Metastatement on Models," in Environment and Population. Edited by John B. Calhoun, Praeger, New York 1983.

T H E M E S E S S I O N

INSTITUTIONAL APPROACHES TO ACADEMIC IMPROVEMENT

PRESENTERS: Robert M. Diamond
Assistant Vice Chancellor
Center for Instructional Development
Syracuse University
U.S.A.

Marcel L. Goldschmid
Chair of Psychology and Higher Education
Swiss Federal Institute of Technology
Switzerland

IN-DEPTH CASE STUDY

Robert M. Diamond, Syracuse University
Marcel L. Goldschmid - Ecole Polytechnique Federale

Introduction

In a brief introductory segment Bob Diamond will review some of the factors that will determine whether or not a support agency, established to have impact on the instructional program of a college or university, will be successful. These include among others (1) the need to be sensitive to the political climate of the institution its power structure, priorities, and operational procedures (2) proper location (3) realistic goals and (4) an effective and efficient operational process.

This will be followed by two presentations in which the structure, philosophy, and impact of two agencies established for this purpose are described.

Case Study I - Marcel L. Goldschmid

Case Study II - Robert M. Diamond

The Center for Instructional Development at Syracuse University was established to work directly with faculty and departments throughout the institution in the improvement of courses and curricula. With a modest budget, the Center has focused on having the maximum impact on students rather than on the more traditional emphasis of faculty development which focuses on the individual instructor. This session will describe the factors behind the establishement of the Center, the philosphy under which it operates, and the impact it has had on the institution in such areas as new and improved courses and curricula, changes in institutional procedures and structures, improved use of resources, changes in the roles of faculty and students and in the improvement of learning. Specific examples will be used throughout the presentation. This model represents one cost effective approach for improving instruction throughout an institution.

Case Study I

THE INTERDEPENDENCE OF MICRO-AND MACROPEDAGOGY

Marcel L. Goldschmid
Chaire de Pédagogie et Didactique
Ecole Polytechnique Féderale de Lausanne, Switzerland

The Chair of Psychology and Higher Education in Lausanne - in contrast to many other "Faculty Development Centers" - is structured more like an ordinary academic unit, since its responsabilities, beside faculty training, include undergraduate and graduate teaching and research.

In a brief presentation, the Chair's organization and activities will be described. Its courses and services such as workshops, consultations, learning centre, video feedback, course evaluations, computer-aided learning, together with the role of undergraduate teaching and research will be highlighted. The interaction and interdependance of "micropedagogy" (the unit's work with faculty and students) and "macropedagogy" (the institutional framework) will be especiall emphasized.

A large segment of the seminar is reserved for discussions with the audience which should provide us with an opportunity to contrast various models of faculty development and identify future perspectives.

INTERACTIVE VIDEO: A SPECIAL AREA IN ITS OWN RIGHT, OR JUST AN ILLUSTRATED FORM OF CAI

Ir. Gerlof van der Veen
Director, Audiovisual Department
University of Utrecht

Peter J.C. Veltman
Head, Department of Research and Development in Higher Education
University of Utrecht

Alex Pinnermans
Research and Development Center for Higher Education
University of Rotterdam

SUMMARY

Interactive Video is a relatively new area. As an area for professional activities, it is claimed by educationalists, as well as by professionals. In the Interactive Video field -- or even more than in previous audio-visual developments -- the question arises whether Interactive Video is a learning method in its own right, or just another audio-visual possibility to make contents matter more understandable? In other words, is Interactive Video a helpful "illustration" or illustration of learning material or is it a learning method? Is it a "quantitative" or "qualitative" leap forward in the field of learning? The answer to this question has consequences for those who are responsible for the production of interactive video programs and for the work relation between educationalists and "mediamen."

INTERNATIONAL EVALUATION AND AN ELECTRONIC DOCUMENT DELIVERY SYSTEM

DESCRIPTION:

The Seminar addresses the issue of international evaluation by using as a case study the independent evaluation in progress of an electronic document delivery project funded by the EEC. The purpose of the project is to provide for the transer of grey literature by computer within and between institutions of higher learning even though the institutions may be in different countries.

The purpose of the evaluation is to assess the user acceptance of the system and the seminar will review the process of the evaluation as a way of demonstrating the constraints of international evaluation.

LENGTH OF SEMINAR: 3 hours

PRESENTERS: John Hurley
Peter McKenna
National Institute for Higher Education, Dublin
Ireland

Roger G. Baker
Snow College
U.S.A.

ELECTRONIC DOCUMENT DELIVERY
MAJOR EVALUATION CONSIDERATIONS

John Hurley
National Institute for Higher Education, Dublin

In designing the evaluation of this project, the evaluators interviewed the Project Director, Dr. Peter McKenna, and Mr. John Page and reviewed the various documents setting up the project.

They also reviewed Doceva I, a document outlining, in general terms, the methods of evaluating such a project. Before deciding on the detailed evaluation strategy the evaluators established the principles on which the evaluation should be based. These are:

1) The evaluation would be geared towards the stated aims of the project.

2) It would be as objective an evaluation as is possible.

3) It would derive its data from the actual participants as well as from the project managers and director.

4) It would have the full agreement to and involvement of the managers.

5) It would utilise both attitudinal, interview and audit software data.

6) The evaluator's role would be separated from the manager's role.

7) The evaluators would make clear the objective of the evaluation.

8) The uses of the evaluation would be explored.

9) Pilot studies would be run to test instruments.

10) Sampling methods would be used when necessary.

11) The evaluation would be mainly formative with summative implications for future projects.

The evaluation was divided into three phases:

a) the Pre-Use Questionnaire. This questionnaire was designed to establish the sort of expectations that possible participants had from a project for Electronic Document Delivery.

b) the Actual Experience Questionnaire. This questionnaire was designed to establish respondents' attitudes to the system as they were experiencing it.

c) the Post-Experience Questionnaire. This questionnaire was designed to tap participants' perceptions of the project as they had experienced it.

Since the project took place in two languages it was decided to employ a professional translator to ensure that the instruments, as designed, were comparable insofar as that is possible, so that the results would also be comparable.

THE INVISIBLE COLLEGE PROJECT

Peter McKenna, Project Manager, NIHE Dublin

The Invisible College project has been undertaken to provide evidence of the potential value of computer-based networks linking academics into a user community. The project has been part-funded by the Commission for the European Communities.

To provide a range of experience which is often available to academic staff, the experiment consists of three strands which are woven together in a blend of microcomputers and mainframes with a variety of software packages available on the different machines supporting the work of academics and administrators.

The project is a two year one which will be drawing to a close at the end of 1985.

Obviously, it is crucial to the purposes of the experiment to establish how the service provided by the network has measured up to user expectations. That is why this seminar is devoted, for the most part, to an evaluation of the experiment which has been carried out by Drs. John Hurley and Roger Baker.

As an international project conducted in three strands, the project offers difficulties which are challenging, if not daunting. However, there can be little doubt about the benefits which one can derive from the efforts to sustain a complex and difficult exercise. It is these benefits which I have little doubt that John Hurley and Roger Baker will share with us to-day.

EVALUATION PROCEDURE - EDOCDEL

Roger G. Baker

The general objectives of the evaluation were to:

1. **Survey** all categories of prospective users of a document delivery system as to their **expectations** including the possible uses of a system that utilizes office automation and microcomputers.
2. **Test user acceptance** of electronic document delivery and publication through office automation and microcomputers by discovering the **attitudes** of system users, by evaluating the **performance** of such a system and by investigating the **institutional issues** of economic viability and organizational context. This evaluation was from the point of view of the user.

ATTITUDES

This dimension of the evaluation dealt primarily with **attitudes** in only a general sense since the entire evaluation is by broad definition a reflection of the attitudes of system users. This general examination of attitudes attempted to discover:

1. The attitude of users to the general concept of electronic document delivery and publication through office automation and microcomputers
2. The attitude of users to the implementation phase of this particular system of document delivery and office automation.

PERFORMANCE

It was the intent that this dimension of the evaluation **evaluate from the point of view of the user:**

1. **Performance** of the system. Issues explored included issues of time, access to the system, ease of use, and general utility.
2. **Quality.** This included questions about document quality and content quality.
3. **Tariffing** The issue here was the cost vs. benefit question from the point of view of the user of the system.

INSTITUTIONAL ISSUES

This part of the evaluation **investigated from the point of view of the user:**

1. **Economic viability.** The intent of this item was to ask primarily of the professional user or manager questions about the on going costs of continuing and/or expanding the system.
2. **Organizational approaches.** This attempted to get at the organizational context questions of system location.

SUMMARY

To summarize then the four main objectives of the evaluation are concerned with **an assessment of expectations and an evaluation of attitudes, mechanics and institutional issues following implementation** of the system.

EDUCATIONAL TECHNOLOGY AND STUDENT LEARNING

A research seminar

Martin Boot, University of Utrecht, Holland
C. Victor Bunderson, University of Utah, USA
Marcel L. Goldschmid, Swiss Federal Institute of Technology, Lausanne, Switzerland, (Chairperson)
Diane Laurillard, Open University, UK

This seminar will highlight innovative instructional approaches using modern technology especially videodiscs and microcomputers.

A variety of programs will be described with an attempt to place them in a national and international context, as well as identifying future perspectives.

Issues which will be addressed in this seminar include :

. cost-effectiveness of educational technology
. team work in curriculum planning
. criteria for selecting content and equipment
. man/machine interface
. program evaluation
. international cooperation in software development

Research on student learning involving educational technology will constitute a major focus of this seminar.

WHAT IS THE OPTIMAL USE OF MICROCOMPUTERS IN UNDERGRADUATE TEACHING ?

Marcel L. Goldschmid
Chair of Psychology and Higher Education
Swiss Federal Institute of Technology, Lausanne
Switzerland

This presentation will focus on a systematic approach of introducing microcomputers into undergraduate teaching.

The Chair of Psychology and Higher Education will play a central role in organizing and consulting with a dozen faculty-student teams which have been constituted in different disciplines in order to create microcomputer software for classroom teaching, individualized instruction and instructional management.

The following topics will be emphasized in this presentation :

- research on computer-assisted learning
- criteria for selecting content to be taught in a human interaction mode or with the help of educational technology
- the role of instructional consultants in CAL, CAI and CMI
- the institutional framework necessary to develop innovative strategies

IMPROVING THE TEACHING LEARNING PROCESS THROUGH MULTIPLE SOURCES OF FEEDBACK (M.S.F.) - A NORWEGIAN CASE STUDY

LENGTH OF SEMINAR: 2 hours

DESCRIPTION:

The purpose of this seminar is to describe, analyze and evaluate a faculty development program practiced at the Norwegian Institute of Technology, NTH, for the last five years. NTH does not have any formal center for faculty development. However, during the last five years it has involved more than two hundred faculty members and also students in activities designed to improve the teaching-learning process in the system. The main feature of the NTH program for experienced faculty is a simulation teaching-learning laboratory utilizing multiple sources of feedback such as: personal recall, oral feedback from student peers, video playback and a consultant. NTH also conducts a program for new faculty in which co-counselling techniques are used. The discussion in the seminar will focus on the roles of the local change agents, key administrators in the institute, an external consultant and the simulation laboratory, in improving the teaching-learning process at NTH. From a qualitative analysis of the experience in the last five years it appears that the program is effective in changing attitudes and behaviours of faculty and students involved in the program. As a result NTH plans to continue the program and expand it in depth and scope.

PRESENTERS: Arye Perlberg
Professor
Department of Education in Technology and Science
Technion - Israel Institute of Technology
Israel

Hans Gunnar Auganes
Deputy Director of Studies
The Norwegian Institute of Technology
Norway

DISCUSSANT: Wilbert J. McKeachie
Director
Center for Research on Learning and Teaching
University of Michigan
U.S.A.

IMPROVING THE TEACHING-LEARNING PROCESS THROUGH SIMULATION LABORATORIES UTILIZING MULTIPLE SOURCES OF FEEDBACK

Arye Perlberg

Technion - Israel Institute of Technology

The Norwegian Institute of Technology, N.T.H., does not have any formal center for faculty development. However, during the last five years, it has involved several hundred faculty members and students in activities designed to improve the teaching-learning process in the system. The main feature of the N.T.H. program is a simulation teaching-learning laboratory utilizing multiple sources of feedback, such as: personal recall, oral feedback from students, peers and a consultant, and video playback. The program is designed for experienced and new faculty. Some of the experienced faculty are trained in consulting skills and serve as co-counselors to the new faculty. From a qualitative analysis of the program it appears that it is effective in changing attitudes and behaviors of participants involved. As a result N.T.H. plans to continue and expand the program in depth and scope. The commitment and cooperation of local change agents, key administrators in the system, and an external consultant who serves as a facilitator in the simulation laboratory seem to be a key factor in the initiation and continuation of the program.

A PROGRAM FOR IMPROVING THE TEACHING - LEARNING PROCESS AT THE NORWEGIAN INSTITUTE OF TECHNOLOGY

Hans Gunnar Augane, Deputy director of Studies
The Norwegian Institute of Technology

The Norwegian Institute of Technology (NTH) runs a program for improving the teaching-learning process involving new faculty, experienced faculty and some of the students. The program is divided into the following activities:

- Two-day introductory workshop for new faculty.
- Personal counselling for new faculty by experienced teachers.
- Two-day workshops on improving teaching for experienced teachers belonging to the same department.
- Two-day workshops for teachers training to become counsellors for new faculty.

The personal counselling for new faculty is done in conjunction with 15-20 of the newly hired's own lessons. The main method of counselling is feed-back from multiple sources. Video-recording of the new teacher at work is recommended.
In the workshops for experienced teachers on improving teaching, a group of students also participate. The students are a very important source of feedback for the teachers. During theses workshops simulations of different forms of teaching-learning are conducted. Video is used extensively.

The training workshops for teachers who will serve as councellors, give each participant an experience in counselling and giving feedback. These workshops are run on two levels, basic and advanced.

All acitivities have been greatly influenced and some is actually run by an external consultant, Prof. Arve Perlberg. His role as a motor of the program, cannot be overvalued.

ADVANCED COLLABORATIVE SYMPOSIUM
on the
APPLICATIONS OF COGNITIVE MODELS TO COLLEGE TEACHING

PREREGISTRATION REQUESTED. A form is included in the pre-Conference papers.

LENGTH OF SYMPOSIUM: 2 hours

OBJECTIVES: To provide a forum for people who have done some work in the area of the applications of cognitive models to college teaching to share, discuss, and work in greater depth on these topics within a group of experienced colleagues.

OUTLINE OF ACTIVITIES: The moderator will present issues to the panel members topic by topic, including such concerns as elements of critical thinking, cognitive styles and teaching methodologies, motivation, maturity and readiness for learning, correct reasoning, evidence, ways of knowing, and learning goals. Panelists will have an opportunity to respond, followed by questions, comments, and further discussion by symposium participants. Emphasis will be on applications of theories and models to improved teaching methods and learning outcomes rather than overviews of theories.

PRESENTERS:

Celia M. McCullough
Associate Director
The Education Advancement Program
The University of Tennessee, Knoxville
U.S.A.

James E. Caraway
Director

Hans F. M. Crombag
University of Leyden
The Netherlands

Stephen F. Foster
The University of British Columbia
Canada

Dean N. Osterman
Oregon State University
U.S.A.

TEN PRINCIPLES OF LEARNING REVISED IN ACCORD WITH CONTEMPORARY COGNITIVE PSYCHOLOGY

by

Stephen F. Foster
The University of British Columbia
Vancouver, Canada

(abstract)

The principles of learning which have been taught to teachers at all levels are revised in terms of modern cognitive psychology. Ten basic learning principles are identified arising from the educational psychology literature used in teacher-preparation programs. Revisions are suggested according to current theory and research in cognitive psychology. In particular, the earlier contributions of E. L. Thorndike, Hull, Guthrie, Lewin, Tolman and Skinner are reintrepreted through the work of Ausubel, Bandura, Farley, McKeachie, Nuttin, Pavio, Rychlak, Weiner and Wittrock. A set of ten revised principles of learning is derived and presented together with interpretations of this analysis for the work of teachers.

WORKSHOP TITLE: AN INSTRUCTIONAL APPROACH TO ACADEMIC IMPROVEMENT

An In-depth Case Study of the Center for Instructional Development at Syracuse University

Robert M. Diamond, Assistant Vice Chancellor for Instructional Development, Syracuse University

A brief description of the reasons why the Center was established in 1971 and the charge it was given will be followed by an in-depth review of its organization, the instructional systems model that is used, and the impact it has had on (1) administrative structures and procedures, (2) course and curriculum design, (3) the role of faculty and students, and (4) on learning.

Designed specifically for administrators, instructional developers, and evaluators responsible for and involved in the improvement of instruction, this session will highlight the roles of individuals, the skills needed, budgeting and staffing for maximum cost effectiveness, and the politics of change on a college or university campus.

The workshop is designed to focus on the pragmatics of improving instruction rather than on theory and will conclude with a review of the major lessons that have been learned over the past 14 years. Active discussion will be encouraged and in-depth case studies and examples in various courses and curricula will be used throughout.

WORKSHOPS

Title of Workshop	Time	Description on Page Below
Teaching Critical Thinking for College Students	Tues. 1300 - 1500	109
The Joy of Boardgames: How to Design and Construct Boardgames for Use in the Classroom	Tues. 1300 - 1500	109a
Incorporating Written and Oral Work in Content Courses: A Burden or an Opportunity?	Wed. 1330 - 1700	110
The Freshman Year Experience: A Cross Cultural Working Examination	Wed. 1330 - 1700	112
Teaching and Research Collaboration with Undergraduate Students	Wed. 1330 - 1700	115
Evaluating Faculty Development Programs: Theory and a Practice	Thurs. 0830 - 1100	117
Interdisciplinary Studies: Developing Programs in Communication	Thurs. 0830 - 1100	119
Perception of Teacher and Student Roles: An Inter-Cultural Approach	Thurs. 0830 - 1100	120
Designing and Creating Computer Based Learning Materials without Computer Programming Skills	Thurs. 0900 - 1200	121
Effective Teaching Techniques	Thurs. 0900 - 1200	122
Supervising Counselors in Training: A Three-Stage Model	Fri. 0830 - 1030	123
The Theory Abstract: An Effective Technique for Teaching Theoretical Material in the Various Disciplines	Fri. 0830 - 1030	124
Tutorial Teaching	Fri. 1400 - 1600	126
Constructing and Scoring Essay Questions	Fri. 1400 - 1600	127

TEACHING CRITICAL THINKING FOR COLLEGE STUDENTS

OBJECTIVES: To create a structure for teaching critical thinking skills to undergraduate students in a general classroom setting.

LENGTH OF WORKSHOP: 2 hours

OUTLINE OF ACTIVITIES:

I. Introduction: "Critical Thinking": An Essential Constituent of a College Curriculum.

II. The Elements of Critical Thinking (Group Brainstorming)

III. Summary of Brainstorming Activity and Development of Critical Thinking Elements (Leader--Group Dialogue)

- A. Summary
- B. "Correct" Reasoning
- C. Commmon Fallacies
- D. What Counts as Evidence
- E. Critical Thinking and Cognitive Models
- F. Ways of Knowing

IV. Teaching Critical Thinking

- A. Teaching Methods
- B. Applications to Critical Thinking

PREVIOUS EXPERIENCE EXPECTED: Some teaching experience and a current interest in teaching. Some advance readings may be made available to workshop participants at the beginning of the conference. This workshop is suggested as a prerequisite to the symposium: "Advanced Teaching." You may want to read Caraway's contributed paper on "Teaching Critical Thinking," included in your conference materials.

MAXIMUM NUMBER OF PARTICIPANTS: 35

PRESENTER(S): James E. Caraway
Director
The Educational Advancement Program
The University of Tennessee, Knoxville
U.S.A.

Celia McCullough
Associate Director

THE JOY OF BOARDGAMES: HOW TO DESIGN AND CONSTRUCT BOARDGAMES FOR USE IN THE CLASSROOM

OBJECTIVES: To demonstrate how to design, construct and play boardgames which provide a dramatic alternative to the classroom lecture.

LENGTH OF WORKSHOP: 2 hours

OUTLINE OF ACTIVITIES: Through demonstration and small group participation this workshop will present the essentials of constructing and playing boardgames for the classroom. The workshop includes:

- An overview of simulation/game theory and its application to the classroom presentation (15 minutes)
- A cost-benefit analysis approach to simulations/games as an alternative to the classroom lecture (5 minutes)
- The framegame kit -- a primer on game design and construction (20 minutes)
- Writing clear and concise game rules (10 minutes)
- Introduction to "loading"...the tailoring of the boardgame to fit individual classroom needs (25 minutes)
- Game Time! Participants play their own boardgames (30 minutes)
- Summarization: A checklist of the important features of an effective classroom game (15 minutes)

PREVIOUS EXPERIENCE EXPECTED: 2 semesters or more of classroom instruction

MAXIMUM NUMBER OF PARTICIPANTS: 30

PRESENTER(S): Stephen E. Sugar
Lecturer
The University of Maryland University College
U.S.A.

INCORPORATING WRITTEN AND ORAL WORK IN CONTENT COURSES:
A BURDEN OR AN OPPORTUNITY?

OBJECTIVES: Participants will learn how to design assignments that will encourage students to master course material, as well as increase their communication skills; to evaluate those assignments and provide effective feedback to students; and to design and conduct oral and written exams that test students' understanding of the material rather than their ability to memorize facts.

LENGTH OF WORKSHOP: 3 1/2 hours

OUTLINE OF ACTIVITIES:

Prof. P. Whiting will discuss guidelines for designing assignments to help students master course material and increase their communication skills. Handouts will be provided. (20 min.)

Each participant will draft a sample assignment for students in the participant's discipline; participants will pair up, read each other's assignments, and each provide feedback on the perceived objectives of the other participant's assignment, point out any ambiguities in the assignment, and suggest modifications. (30 min.)

One or two sample assignments will be read aloud and discussed by all participants. (10 min.)

Break (10 min.)

Prof. M. Nord will discuss guidelines for evaluating written work. (15 min.)

Participants will evaluate sample excerpts from student reports. (10 min.)

Group will discuss evaluation of the excerpts. (15 min.)

Prof. Nord will discuss guidelines for evaluating oral presentations. (10 min.)

A mock oral presentation will be given, and participants will evaluate it on the forms provided. (10 min.)

Group will discuss evaluation of the mock oral presentation. (10 min.)

Break (10 min.)

Prof. W. Whiting will discuss how to develop written and oral exams that lead students to use higher-level learning skills before, during, and after the exam. Examples will be shown and handouts provided. (15 min.)

Each participant will develop a written exam question based on the topic of the sample oral presentation given earlier in the workshop. (10 min.)

Participants will pair up and respond to each other's written exam questions. After responding, the participants will describe what types of thinking processes they experienced and suggest modifications to the question that would help students apply higher-level learning skills. (20 min.)

Workshop presenters will stage a mock oral exam. (5 min.) (Presenters will provide closure for their sections of the workshop.)

Participants will discuss the mock oral exam. (10 min.)

PREVIOUS EXPERIENCE EXPECTED: Some college-level teaching experience

MAXIMUM NUMBER OF PARTICIPANTS: 30

PRESENTER(S): Patricia H. Whiting
College of Engineering
West Virginia University
U.S.A.

Wallace B. Whiting
Chemical Engineering Department

Martha Nord
Vanderbilt University
U.S.A.

THE FRESHMAN YEAR EXPERIENCE:
A CROSS CULTURAL WORKING EXAMINATION

OBJECTIVES:

1. To share the "Freshman Year Experience" concept with American and particularly non-American educators.

2. Make participants aware of the mushrooming interest in special programs to enhance the success of first year college and university students and to simultaneously improve the classroom instruction received by first year students.

3. Give examples of these programs.

4. Introduce participants to the freshman seminar concept as a technique for improving the teaching/learning process in first year courses.

5. Demonstrate experientially some of the teaching techniques used in a freshman seminar.

6. Have participants share and inform each other of the unique nature of the freshman year experience in their respective countries.

7. Explore similarities and differences.

8. Analyze common problems.

9. Share unique national and cultural responses to these problems.

10. Determine what we have learned from this exchange and develop a process/network for sharing additional information, resources after the IUT conference.

11. In general, to provide for workshop participants an enhanced awareness of the unique nature cross culturally of the first year college and univers. y experience.

LENGTH OF WORKSHOP: 3 1/2 hours

OUTLINE OF ACTIVITIES:

1. Introduction of the workshop and the four facilitators (5 min.)

2. Namechain Exercise: Who are the participants and what is their relationship to supporting the special adjustment needs of first year college and university students? (25 min.)

3. Overview of the freshman year experience and freshman seminar concepts in American higher education - presentation by four facilitators and question and answer session. (40 min.)

4. Five minute break.

5. Subdivide the total group with maximum mix of the nationalities, preferably into five groups of five participants. Each group will have each individual describe the nature of the first year college and university educational experience in his or her particular country. The groups will be charged to explore similarities and differences. Each group is to have a recorder who will report back the findings and conclusions after this session.

6. Return to the big group and have a report back session at which the recorder of each group will identify the common themes and problems that have emerged from the previous small group sessions. The four facilitators will share from their own experience and will offer summaries. (15 min.)

7. Five minute break.

8. Then form new groups, again maximizing the mix of nationalities. This time the task will be to focus on and respond to the shared problems that have been raised in the previous session. How are these problems being dealt with successfully or unsuccesfully? Why do these problems exist in some countries and not in others? (45 min.)

9. Concluding session: What have we learned? How can we follow up after the workshop and provide more information and a network for e h other? Summary by the four facilitators. (25 min.)

PREVIOUS EXPERIENCE EXPECTED: Professional working relationships with students in the first year of a college or university.

MAXIMUM NUMBER OF PARTICIPANTS: 25

PRESENTER(S): John J. Duffy
System Vice President for University Campuses
and Continuing Education
University of South Carolina
U.S.A.

John N. Gardner
Associate Vice President for University Campuses
and Continuing Education

Mary Stuart Hunter
Director of Academic Advising and Special
Academic Projects

A. Jerome Jewler
Co-Director, Academic Advising and Special
Academic Projects

TEACHING AND RESEARCH COLLABORATION
WITH UNDERGRADUATE STUDENTS

OBJECTIVES: To provide practical exercises for participants in the design of instructional/research experiences for undergraduate students.

LENGTH OF WORKSHOP: 3 1/2 hours

OUTLINE OF ACTIVITIES:

Part I: Dr. Pettigrew will present an overview of current research on the effects of undergraduate involvement in the learning process with particular reference to research collaboration with faculty and will present a description of the University of Delaware's Undergraduate Research Program, its impact upon teaching and learning, and the fiscal resources needed to support such a program.

Faculty from the University of Delaware will present undergraduate research activities that span the three levels of academic collaboration identified by Romer and Whipple (in presentations given at the 1984 FIPSE Project Directors Conference and the 1985 AAHE Conference). Professor Kuhlman will describe a new model for faculty-student collaboration that can be used as a unit in a course. Professor Eisenberger will outline the steps necessary for apprenticing undergraduate students as research assistants. Professor Kulacki will discuss undergraduate research collaboration in the sciences and engineering and will describe a model for building an Undergraduate Research Program that incorporates Summer Sessions. Professor Bennett will illustrate the advantages to a university of a central support program for undergraduate research activities. The above presentations will take approximately 60 minutes, followed by a discussion of approximately 20 minutes.

Part II: During a planned break of 20 minutes, workshop participants will sign up to work in four different groups on the design of one of the following undergraduate research/instruction programs with guidelines provided by the presenters: A class project, apprenticeships with an individual faculty researcher, a college or university wide undergraduate research program. Participants will work with University of Delaware presenters on individual projects for 60 minutes and will then reassemble to share and discuss selected program designs. The final discussion period will be 50 minutes.

PREVIOUS EXPERIENCE EXPECTED: Participants should have had experience in instruction with undergraduates, instructional development projects or research with undergraduates.

MAXIMUM NUMBER OF PARTICIPANTS: 45

PRESENTER(S): L. Eudora Pettigrew
Associate Provost for Instruction
University of Delaware
U.S.A.

Joan S. Bennett
Coordinator of Undergraduate Research

Francis A. Kulacki
Professor and Chairperson
Department of Mechanical and
Aerospace Engineering

Robert Eisenberger
Associate Professor of Psychology

David Michael Kuhlman
Associate Professor of Psychology

EVALUATING FACULTY DEVELOPMENT PROGRAMS:
THEORY AND A PRACTICE
(A Case Study of the Evaluation of the Program for Faculty Renewal at Stanford University, 1975-1984)

OBJECTIVES: To clarify the purposes and methods of program evaluation by giving participants opportunities both to design an ideal evaluation and to compare the results with an actual recent evaluation.

LENGTH OF WORKSHOP: 2 1/2 hours

OUTLINE OF ACTIVITIES:

1. Introduction and Background (15 min.)

   Halliburton and Fisher will briefly introduce the workshop's goals and procedures and the case study material which will be used in the second half of the workshop.

2. Small Group Work (20 min.)

   Participants will receive a handout asking them to work in small groups to list and rate the essential components of a program evaluation; generate criteria for judging the effectiveness of an evaluation; and suggest models of evaluative methodology.

3. Small Group Reports (15 min.)

   A report from each group will highlight its findings in the three areas of discussion.

4. Consolidation and Interpretation of the Findings (15 min.)

   Halliburton and Fisher will summarize the groups' findings and interpret these in the light of relevant literature.

5. Discussion (20 min.)

   Participants will be invited to share questions or qualifications.

6. Break (10 min.)

7. Comparison of Group Findings with the Case Study Materials (20 min.)

   Results of a report on the evaluation of the Program for Faculty Renewal at Stanford will be used to refine, extend, and clarify the groups' findings.

8. General Discussion (25 min.)

Participants will have the opportunity to comment on the case study or more general questions on program evaluation.

9. Conclusion (10 min.)

PREVIOUS EXPERIENCE EXPECTED: None

MAXIMUM NUMBER OF PARTICIPANTS: 25

PRESENTER(S): David Halliburton
Department of English
Stanford University
U.S.A.

Michele Fisher
Center for Teaching and Learning

INTERDISCIPLINARY STUDIES:
DEVELOPING PROGRAMS IN COMMUNICATIONS

OBJECTIVES: To discuss the components of an interdisciplinary curriculum in communications; to develop sample curricula for a comprehensive program in communication arts in a liberal arts context; to develop sample curricula for exemplary courses in such a program, e.g., Intro. to Mass Media.

LENGTH OF WORKSHOP: 2 1/2 hours

OUTLINE OF ACTIVITIES:

After preliminary introduction of participants (10 min.), the first portion of the workshop will be devoted to a general discussion of the potential contents of an interdisciplinary program in communications. We will consider the appropriate elements of such a curriculum, technological as well as interpersonal, media, and writing components, as well as the integration of other course offerings from related fields such as psychology and political science. The group product will be a sample course of study arrived at by mutual consultation. (45 min.)

The second portion will consist of the development, in small groups, of sample curricula for specific exemplary courses, e.g., Media and Society, Introduction to Mass Communications, and Intercultural Communications. In each instance, through group discussion and analysis, we will derive a basic outline of topics for such a course. The results of these group efforts will then be shared with and considered by the entire membership of the workshop. (60 min. discussion, 40 min. sharing with the entire group, including an additional 10 min. break)

PREVIOUS EXPERIENCE EXPECTED: Preferably, but not necessarily, involvement in communications or related areas.

MAXIMUM NUMBER OF PARTICIPANTS: 20

PRESENTER(S): Kathleen Sunshine
Professor of Communications
Ramapo College of New Jersey
U.S.A.

PERCEPTIONS OF TEACHER AND STUDENT ROLES:
AN INTER-CULTURAL APPROACH

OBJECTIVES:

a. Examine perceptions about teaching and learning from student and faculty viewpoints;

b. Analyze perceptions from an inter-cultural perspective, using Morris Massey's "value programming" approach;

c. Present a workshop model that participants can implement at their institutions.

LENGTH OF WORKSHOP: 2 1/2 hours

OUTLINE OF ACTIVITIES:

Introduction/workshop overview	5 min.
Icebreaker exercise	10 min.
Background on perception	10 min.
Divide into 2 groups, "faculty" and "students", and present video scenario exercise	10 min.
Discuss perceptions of teacher and student	25 min.
BREAK	15 min.
What are appropriate roles Consensus exercise	25 min.
Barriers to achieving teacher/student consensus: Morris Massey model	25 min.
Implementing workshop model at your institution	15 min.
Wrap-up	10 min.

PREVIOUS EXPERIENCE EXPECTED: None

MAXIMUM NUMBER OF PARTICIPANTS: 24

PRESENTER(S): Hugo A. Keesing
Director
Institutional Analysis and Planning
Department of Defense
Defense Intelligence College
U.S.A.

Melissa G. Daston
Coordinator
Faculty Development

DESIGNING AND CREATING COMPUTER BASED LEARNING MATERIALS WITHOUT COMPUTER PROGRAMMING SKILLS

OBJECTIVES: To enable instructors with no computer experience but good educational skills to plan and create computer based learning and testing materials.

LENGTH OF WORKSHOP: 3 hours

OUTLINE OF ACTIVITIES:

Part 1: The workshop will demonstrate a videotex computer authoring and presentation system developed at the University of Guelph. This system provides high quality, low-cost colour graphic and text frames with interactive feedback and branching modes as well as computer managed records of student performance. The system uses IBM-PC microcomputers.

Part 2: Using guidelines for planning and designing teaching materials, participants will prepare a paper outline for a short test and feedback instructional sequence.

Part 3: Working in pairs and using the "VITAL System for Education and Training," participants will create NAPLPS videotex text and graphic computer frames and assign the programming sequence commands.

PREVIOUS EXPERIENCE EXPECTED: None

MAXIMUM NUMBER OF PARTICIPANTS: 12

PRESENTER(S): T. F. Herrman
A. B. Moore
L. G. Richards
University of Guelph
Canada

EFFECTIVE TEACHING TECHNIQUES

OBJECTIVES: By the end of this workshop participants should be able to:

Describe and explain an instructional model which includes cycles of objectives, instruction, and assessment. Name ten important techniques which can be used for effective instruction. Name five techniques which effective instructors should avoid. Describe the importance of learner participation and feedback in the learning process. Describe three different types of questioning techniques. Describe the components of properly stated instructional objectives and the advantages and problems associated with these objectives.

LENGTH OF WORKSHOP: 3 hours

OUTLINE OF ACTIVITIES:

Discussion of an instructional model and its implications. (15 min.)

Modeling and discussion of effective teaching techniques:

(1) Physical arrangement of the classroom (10 min.)
(2) Learning styles, analyzing your own learning style and teaching for a range of learning styles (40 min.)
(3) Instructor attitude (10 min.)
(4) Feedback collection for this session (10 min.)
(5) Break (15 min.)
(6) Summary of feedback and a discussion of the routine collection and use of feedback during a college course (20 min.)
(7) Teaching techniques which should be avoided (10 min.)
(8) Questioning modes and how "wait time" (the amount of time one pauses after asking a question) can influence student responses and teacher questions (50 min.)

All techniques are demonstrated and modeled as part of the workshop. There is continuous discussion of participants reactions and experiences.

PREVIOUS EXPERIENCE EXPECTED: At least one year's experience in teaching at the college level.

MAXIMUM NUMBER OF PARTICIPANTS: 30

PRESENTER(S): Robert A. Bernoff
Professor and Campus Executive Officer
The Pennsylvania State University
Ogontz Campus
U.S.A.

SUPERVISING COUNSELORS IN TRAINING: A THREE-STAGE MODEL

LENGTH OF WORKSHOP: 2 hours

OUTLINE OF ACTIVITIES:

Three stages of supervision will be described, using the Transactional Analysis (TA) concepts of Permission, Protection and Potency, and of contract. The first of these stages will then be elaborated using Interpersonal Process Recall (IPR) developed by Prof. Norman Kagan. The third stage will use some advanced TA concepts proposed by Dr. Richard Erskine and Dr. Marilynn Zalcman. In the Netherlands IPR is used to teach students of counselling how to act as inquirer for each other when a fellow student plays back an audio or video tape of their own work. The tape acts as basis for a recall process designed to be as little threatening as possible and to invite the counsellor to look at and learn from the psychological level (process) when reviewing his or her own tape. The clearly structured cues of the inquirer role usually enable the inquirer to use and become comfortable with an assertive and supportive attitude which will stimulate learning-by-discovery in the trainee. This part of the workshop will be illustrated by practical exercises and parts of the video instruction programme about the inquirer role, 'The Tip of the Iceberg' made by the presenter at the University of Utrecht. Subsequently the third stage of supervision will be shown, with opportunity for active participation. In this stage students are asked to refine their actions, to think theoretically, to formulate advantages and disadvantages of various frames of reference and to develop their creativity.

PREVIOUS EXPERIENCE EXPECTED: None

MAXIMUM NUMBER OF PARTICIPANTS: 60

PRESENTER(S): Erika Stern
Senior Lecturer
Faculty of Social Sciences
University of Utrecht
The Netherlands

THE THEORY ABSTRACT: AN EFFECTIVE TECHNIQUE FOR TEACHING THEORETICAL MATERIAL IN THE VARIOUS DISCIPLINES

OBJECTIVES: Participants will learn to use a method of teaching primary theoretical material. The ultimate purpose is to promote students' skill in precise analysis, interpretation, and comparison of theoretical materials; ability to apply theoretical approaches; and capacity to use theoretical materials to create new knowledge.

LENGTH OF WORKSHOP: 2 hours

OUTLINE OF ACTIVITIES:

Derived from the dominant method used in U.S. legal education, the theory abstract requires the student to summarize the features of the theory judged to be most important and provides detailed notes to be used in higher-order applications. A set of theory abstracts facilitates efficient use of large quantities of complex conceptual content.

The format of the theory abstract requires the student to extract complete bibliographic information, a short descriptive title or characterization of the theory, the broad generalizations or assumptions from which the theory derives, key concepts and their definitions, the major relationships proposed between key concepts, important implications for the student's discipline, and where feasible, a graphic model of the theoretical material.

The instructional method built around the theory abstract requires student presentation of the abstract, student and instructor interaction to enrich and refine understanding, closure activities for blocks of material, and application of theoretical materials to actual or hypothetical problems in the student's discipline.

The session will consist of introductory remarks and presentation of the method (20), participant reading of a theoretical article from any of several disciplines (10), participant preparation of a practice theory abstract (15), presenter presentation of a sample theory abstract for the article (10), interaction on use of the technique (20), break and repetition of the process with one or more readings as time permits (60), and comments on application of the theory abstract to classroom instruction (15).

PREVIOUS EXPERIENCE EXPECTED: Responsibility for instruction of students in the application and use of theoretical materials.

MAXIMUM NUMBER OF PARTICIPANTS: Any number can be accommodated; the number of work groups will simply be expanded as necessary.

PRESENTER(S): Robert J. Beebe
Associate Professor
Educational Administration
The University of Mississippi
U.S.A.

TUTORIAL TEACHING

OBJECTIVES: To demonstrate some techniques for small group teaching which are independent of discipline; to lead a tutorial on leading tutorials; to provide participants with additional teaching skills and some increased self-awareness of their own strengths and weaknesses.

LENGTH OF WORKSHOP: 2 hours

OUTLINE OF ACTIVITIES:

This workshop will be a self-referential exploration of the difficulties, the strengths and weaknesses of small-group or tutorial teaching. The instruction will be experiential rather than didactic, and will encourage members' interaction and participation in a variety of verbal and non-verbal exercises, and discussions in sub-groups. The duration and the nature of the activities will be guided by the expressed desires of the participants. An outline of activities is given on the following page.

PREVIOUS EXPERIENCE EXPECTED: None

MAXIMUM NUMBER OF PARTICIPANTS: 25

PRESENTER(S): Anthony W. Key
Associate Chairman
Department of Physics
University of Toronto
Canada

Detailed Description of Workshop Activities

Since the duration and the nature of the activities depend greatly on the expressed desires of the participants (not to mention the frame of mind of the presenter!), a specific and detailed description is impossible. The following is typical of workshops of this sort I have run.

1. "Introductions"; personal statement of needs, importance of, and strategies for remembering names. (10 minutes)

2. "Communication"; (dyads). One of several possibilities aimed at increasing participants' awareness of importance and difficulty of communication (mainly verbal). Inter-dyad discussion, full group review. (20 minutes)

3. "Cooperation"; (triads). Exploration of non-verbal interactions, using a joint and explicitly defined task. Intertriad discussion, full group review. (20 minutes)

4. Break. (10 minutes)

5. "Feedback (Theory)"; A brief statement of these "rules" of giving and receiving feedback for later use. Group discussion. (10 minutes)

6. "Buzz Group"; (4 or 5 per group). Sub-group discussions of either one general topic for all sub-groups or one specific topic per sub-group, with "discussion leader" and "secretary" chosen by the sub-group. (20 minutes)

7. "Process Evaluation"; Using "buzz group" as an example, explore verbal and non-verbal communication cues of buzz group members using silent reflection, sharing of feedback. (10 minutes)

8. "Content Evaluation"; Report of buzz groups back to full group of points of agreement, concern, difficulty. (10 minutes)

9. "Wrap-up"; Group comments on successes/failures of workshop as an exemplar of a tutorial: Summary of areas covered, omitted; appreciations and criticism to/from leader, and inter-group. (10 minutes)

CONSTRUCTING AND SCORING ESSAY QUESTIONS

OBJECTIVES: Involve participants in activities to:

- Write clear essay questions
- Develop strategies to offset subjectivity
- Score questions reliably
- Develop ability to use both point scoring and rating techniques for evaluating answers

LENGTH OF WORKSHOP: 2 hours

OUTLINE OF ACTIVITIES: The activities are organized under the following headings:

ROLE AND VALUE OF ESSAY QUESTIONS (10 min.)
- Relationship to objective tests
- Types of thinking involved

GUIDELINES FOR WRITING CLEAR ESSAY QUESTIONS (20 min.)
- Key words - necessity and value
- Levels of objectives

STRATEGIES TO OFFSET SUBJECTIVITY (15 min.)
- Structuring the question
- Use of scoring key

STEPS IN USING POINT SCORE METHOD (30 min.)
- Objectives
- Model answer with points assigned

STEPS IN USING RATING METHOD (30 min.)
- Criteria for testing objectives
- Classify criteria at specified levels

SUMMARY AND REVIEW (15 min.)
- Develop questions and model answers

PREVIOUS EXPERIENCE EXPECTED: None

MAXIMUM NUMBER OF PARTICIPANTS: 20

PRESENTER(S): Ron J. McBeath
Coordinator
Faculty and Instructional Development Office
San Jose State University
U.S.A.

INDEX
OF
PRESENTERS

INDEX OF PRESENTERS

AUGANES, Hans G. 103

BAKER, Roger G. 96

BASKIND, Frank R. 9, 215

BAUDOUX, Claudine 44, 577

BEEBE, Robert J. 124

BENNETT, Joan S. 115

BERNOFF, Robert A. 76, 122, 891

BOOT, Martin 68, 101, 803

BRANDT, Deitrich 62, 745

BRASKAMP, Larry A. 41, 544

BRINGLE, Robert G. 47, 606

BROWER, Irene C. 35, 489

BROWN, F. Dale 36, 499

BUCHEN, Irving H. 65, 778

BUNDERSON, C. Victor 101

BURTON, Gene E. 21, 339

BUTTON, Bryan L. 77, 901

CALLAN, Patrick M. 81a

CANAVAN-GUMPERT, Donnah 1, 135

CARAWAY, James E. 63, 106, 109, 755

CARUANA, Claudia M. 16, 288

COHEN, Audrey C. 22, 348

COLLIER, Henry W. 42, 555

CROMBAG, Hans F. 106

DASTON, Melissa G. 120

DIAMOND, Robert M. 93, 107a

DIENEMANN, Jacqueline A. 28, 417

DONALD, Gillian A. 57, 697
DONSKY, Aaron P. 27, 407
DOUTT, Jeffrey T. 45, 585
DRUMMOND, Caroline 17, 298
DUFFY, John J. 112
DUROJAIYE, Susan M. 57, 697
EBLE, Kenneth E. 78, 911
ECROYD, Donald H. 17, 298
EISENBERGER, Robert 115
ELTON, Lewis R. B. 88
ESTABROOK, Marina 31, 448
FAZZONE, Roger A. 27, 407
FISHER, Michele S. 117
FOSTER, Stephen F. 106
FOWLER, Gerald T. 82
FRANK, Ruth Esser 71, 832
FREELEY, James 22, 348
FREELEY, Mary Ellen T. 58, 707
FRIEDMAN, Morton 4, 178
GALE, John R. 46, 595
GARDNER, John 112
GHATAK, Rita 59, 715
GMELCH, Walter H. J. 10, 224
GOLDSCHMID, Marcel L. 93, 101
GRIMSHAW, Alan E. 48, 616
HALL, Edward T. 89
HALLIBURTON, David G. 117
HAWKINS, C. Anne 68, 803
HAYES, Harold L. 37, 508

HERRMANN, Thomas F. 121

HUBBARD, Taylor E. 32, 454

HUNTER, Mary S. 112

HURLEY, John 96

INDIRESAN, Jayalakshmi 49, 624

INDIRESAN, Pavagada V. 60, 722

JACKSON, William K. 11, 237

JEDLICKA, Davor 72, 842

JEWLER, A. Jerome 112

JONES, John F. 38, 518

JONES, William R. 50, 631

KAY, Carol R. 51, 640

KEESING, Hugo 120

KEY, Anthony W. 126

KUHLMAN, David M. 115

KULACKI, Francis A. 115

LAHEY, Miriam 73, 852

LARSON, Calvin J. 23, 359

LEVIN, Lennart 84

LINDENAU, Suzanne E. 52, 649

LINDSAY, Michael S. 14, 248

LOVE, Robert D. 51, 640

LUEGENBIEHL, Heinz C. 74, 862

MACDONALD, Judith B. 81, 734

MCBEATH, Ronald J. 127

MCCULLOUGH, Celia M. 106, 109

MCFARLANE, L. R. 69, 813

MCKEACHIE, Wilbert J. 103

MCKENNA, Peter 36

MEHROTRA, Chandra M. N.	43, 466
MILLARD, Thomas L.	18, 308
MILLER, Fred L.	66, 785
MILLIS, Barbara J.	79, 920
MIRON, Mordechai	13, 259
MÖHLE, Horst	Late Papers
MOORE, Albert B.	5, 67, 121, 188, 795
MURRAY, Robert	6, 198
NORD, Martha A.	110
OSTERMAN, Dean N.	106
PERLBERG, Arye	85, 103
PETTIGREW, L. Eudora	115
PILOT, Albert	7, 201
PINNERMANS, Alex	95
POON, Wai K.	39, 527
RAISMAN, Neal A.	19, 319
RATCLIFF, James L.	33, 468
REED, Patsy B.	29, 427
RETSINAS, Joan	40, 536
REYNOLDS, David V.	53, 659
RICHARDS, Leslie G.	121
RUSSELL, William E.	34, 478
SCHMELZER, Claire D.	2, 150
SCHMELZER, Ronald	2, 150
SELDIN, Peter	85
SHOENBERG, Robert E.	54, 669
SHUMAN, R. Baird	30, 437
SIEGEL, Michael E.	14, 268
SIMPSON, Ronald D.	11, 237

SINGLETON, Rivers	20, 329
SMITH, Fred W.	75, 873
SODERLIND, Mary-Kaye	64, 763
SPICUZZA, Frank J.	3, 9, 160, 215
STERN, Erika, M.	123
SUGAR, Stephen E.	109a
SUNSHINE, Kathleen	119
THOELEN, M.	8, 209
TLACH, Peter	24, 370
TRAHEY, John T.	15, 277
TRAVAGLINI, Joseph	70, 821
VAN DER VEEN, Gerlof	95
VAN EIJL, P. J.	Late Papers
VAN ROSSUM, Erik J.	25, 26, 381, 393
VELTMAN, Peter J. C.	95
WANKOWSKI, Janislaw Adam	80, 930
WEAVER, V. Phillips	55, 679
WHITING, Patricia H.	110
WHITING, Wallace B.	110
WIJFFELS, H. J. C.	26, 393
YAMASHITA, Hajime	56, 688